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show files
File 155:MEDLINE(R) 1966-1996/July W2
         (c) format only 1996 Knight-Ridder Info
File   5:BIOSIS PREVIEWS(R) 1969-1996/May W1
         (c) 1996 BIOSIS
File 350:Derwent World Pat. 1963-1980/UD=9616
         (c) 1996 Derwent Info Ltd
File 351:DERWENT WPI 1981-1996/UD=9620;UA=9616;UM=9608
         (c)1996 Derwent Info Ltd
?ds

Set     Items   Description
S1       7583   BOTULINUM
S2       2670   NEUROTOXIN (3N) A
S3     205988   VACCINE? OR IMMUNIZ? OR IMMUNIS?
S4        384   S1 (5N) S2
S5          4   S3 (20N) S4
S6     150670   VACCIN?
S7     239634   S6 OR S3
S8          4   S7 (20N) S4
S9          2   RD S8 (unique items)
S10     32880   TOXIN (3N) A
S11      1366   S1 (5N) S10
S12       641   S7 (20N) S10
S13         7   S7 (20N) S11
S14         7   RD S13 (unique items)
S15         9   S13 OR S9
?t 15/7/all

 15/7/1     (Item 1 from file: 155)
DIALOG(R)File 155:MEDLINE(R)
(c) format only 1996 Knight-Ridder Info. All rts. reserv.

09380035   95310035
  Protective vaccination with a recombinant fragment of Clostridium
 botulinum neurotoxin serotype A expressed from a synthetic gene in
Escherichia coli.
  Clayton MA; Clayton JM; Brown DR; Middlebrook JL
  Toxinology Division, U.S. Army Medical Research Institute of Infectious
Diseases, Frederick, Maryland 21702-5011, USA.
  Infect Immun (UNITED STATES) Jul 1995, 63 (7) p2738-42, ISSN
0019-9567 Journal Code: GO7
  Languages: ENGLISH
  Document type: JOURNAL ARTICLE
  A completely synthetic gene encoding fragment C, a approximately 50-kDa
fragment, of botulinum neurotoxin serotype A was constructed from
oligonucleotides. The gene was expressed in Escherichia coli, and
full-sized product was produced as judged by Western blot (immunoblot)
analysis. Crude extracts of E. coli expressing the gene were used to
vaccinate mice and evaluate their survival against challenge with active
toxin. Mice given three subcutaneous vaccinations were protected against an
intraperitoneal administration of 10(6) 50% lethal doses (ID50) of serotype
A toxin. The same mice survived when challenged with 3 LD50 of botulinum
toxin serotype E but died when challenged with 10 LD50 of serotype E or 3
LD50 of serotype B. Purified fragment C was compared with the botulinum
toxoid vaccine in a vaccination and challenge study. Fragment C was as
efficacious in protecting against challenge with active botulinum
 neurotoxin serotype A as the toxoid vaccine . This recombinant protein
product has many properties that make it a good candidate for human use to
protect against botulinum toxin.


 15/7/2     (Item 2 from file: 155)
DIALOG(R)File 155:MEDLINE(R)
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06107062 87081062
In vitro assays for botulinum toxin and antitoxins.
Shone C; Appleton N; Wilton-Smith P; Hambleton P; Modi N; Gatley S; Melling J
Dev Biol Stand (SWITZERLAND) 1986, 64 p141-5, ISSN 0301-5149 Journal Code: E7V
Languages: ENGLISH
Document type: JOURNAL ARTICLE
Clostridium botulinum produces several powerful neuroparalytic toxins which, although rare in food-poisoning instances, are generally fatal. A considerable amount of effort has therefore been made by the food industry to ensure that food treatment processes adequate to prevent growth and toxin production by Cl. botulinum. Laboratory mice and guinea-pigs are presently used extensively both for the assay of botulinum toxins and for the development and assessment of vaccines used to protect laboratory workers. An amplified ELISA, using a monoclonal antibody, has been developed for botulinum type A toxin with a sensitivity similar to that of the mouse acute toxicity test. The immunoassay has been found to be applicable to the detection of toxin in foodstuffs and could replace the currently used mouse bioassay in many laboratories. Immunoassays have also been developed for the detection of antibodies to botulinum toxins. A preliminary study has shown that antibody titres to botulinum types A and B toxins in sera taken from immunised personnel, as measured by ELISA, showed limited correlation with those measured by the toxin neutralisation test in mice. A more extensive study should determine whether the latter test can be replaced by the ELISA.

15/7/3 (Item 3 from file: 155)
DIALOG(R)File 155:MEDLINE(R)

05662134 85278134
Monoclonal antibody-based immunoassay for type A Clostridium botulinum toxin is comparable to the mouse bioassay.
Shone C; Wilton-Smith P; Appleton N; Hambleton P; Modi N; Gatley S; Melling J
Appl Environ Microbiol (UNITED STATES) Jul 1985, 50 (1) p63-7, ISSN 0099-2240 Journal Code: 6K6
Languages: ENGLISH
Document type: JOURNAL ARTICLE
A monoclonal antibody (BA11) has been produced against Clostridium botulinum type A neurotoxin by the fusion of myeloma cells (P3 NS1/1-Ag4-1) with spleen cells from BALB/c mice immunized with botulinum type A neurotoxoid. The antibody bound specifically to botulinum type A neurotoxin , showing no cross-reactivity with types B and E botulinum toxins or with any of several other bacterial toxins tested. The monoclonal antibody did not bind to botulinum type A neurotoxin which had been denatured with sodium dodecyl sulfate and bound only weakly to each of the separated heavy and light subunits of the neurotoxin, suggesting a conformational requirement for the antigenic determinant of the antibody. A sensitive immunoassay for C. botulinum type A toxin with monoclonal antibody BA11 in conjunction with an enzyme amplication system has been developed which allows detection of 5 to 10 mouse 50% lethal doses ml-1 of purified neurotoxin. The assay was equally sensitive when applied to the detection of crude toxin in food stuffs; the average value for the minimum level of detectable toxin in extracts of tinned salmon or corned beef was 9 +/- 3.1 mouse 50% lethal doses ml-1.

15/7/4 (Item 4 from file: 155)
DIALOG(R)File 155:MEDLINE(R)

05316225 84240225
Detection of Clostridium botulinum type A toxin by enzyme-linked immunosorbent assay with antibodies produced in immunologically tolerant animals.
Dezfulian M; Bartlett JG
J Clin Microbiol (UNITED STATES) May 1984, 19 (5) p645-8, ISSN 0095-1137 Journal Code: HSH
Languages: ENGLISH
Document type: JOURNAL ARTICLE
Immunological tolerance is a state of unresponsiveness to foreign substances (antigens) which can develop in human and animal species as the result of continued exposure to antigens early in life. We utilized this principle for the preparation of antibodies against Clostridium botulinum type A toxin . By selective suppression of the immunological response of rabbits to unwanted antigens and subsequent immunization with a toxoid, we were able to produce a specific type A antitoxin without the need to purify the toxin. Despite cross-reactivity with C. botulinum type B, our type A antitoxin was otherwise specific since it did not react with culture filtrates of nontoxigenic variants of type B, any other C. botulinum type (C, D, E, F, and G), nor with 18 other Clostridium species, including Clostridium sporogenes. Using this antitoxin, we developed a sensitive enzyme-linked immunosorbent assay for detection of C. botulinum type A toxin.

15/7/5 (Item 1 from file: 5)
DIALOG(R)File 5:BIOSIS PREVIEWS(R)

11781739 BIOSIS Number: 98381739
Protective vaccination with a recombinant fragment of Clostridium botulinum neurotoxin serotype A expressed from a synthetic gene in Escherichia coli
Clayton M A; Clayton J M; Brown D R; Middlebrook J L
Life Sci. Div., U.S. Army Dugway Proving Ground, Dugway, UT 84022-5000, USA
Infection and Immunity 63 (7). 1995. 2738-2742.
Full Journal Title: Infection and Immunity
ISSN: 0019-9567
Language: ENGLISH
Print Number: Biological Abstracts Vol. 100 Iss. 005 Ref. 073577
A completely synthetic gene encoding fragment C, a apprx 50-kDa fragment, of botulinum neurotoxin serotype A was constructed from oligonucleotides. The gene was expressed in Escherichia coli, and full-sized product was produced as judged by Western blot (immunoblot) analysis. Crude extracts of E. coli expressing the gene were used to vaccinate mice and evaluate their survival against challenge with active toxin. Mice given three subcutaneous vaccinations were protected against an intraperitoneal administration of 10-6 50% lethal doses (LD-50) of serotype A toxin. The same mice survived when challenged with 3 LD-50 of botulinum toxin serotype E but died when challenged with 10 LD-50 of serotype E or 3 LD-50 of serotype B. Purified fragment C was compared with the botulinum toxoid vaccine in a vaccination and challenge study. Fragment C was as efficacious in protecting against challenge with active botulinum neurotoxin serotype A as the toxoid vaccine . This recombinant protein product has many properties that make it a good candidate for human use to protect against botulinum toxin.

15/7/6 (Item 2 from file: 5)
DIALOG(R)File 5:BIOSIS PREVIEWS(R)

11665435 BIOSIS Number: 98265435
Evidence for oral ingestion as the principal route of antigen entry in bath-immunized fish
Robohm R A; Koch R A
Northeast Fisheries Sci. Center, 212 Rogers Ave., Milford, CT 06460, USA
Fish & Shellfish Immunology 5 (2). 1995. 137-150.
Full Journal Title: Fish & Shellfish Immunology
ISSN: 1050-4648
Language: ENGLISH
Print Number: Biological Abstracts Vol. 099 Iss. 012 Ref. 170353
This study re-examines the route of antigen entry in bath-immunized fish by making use of a 150 kDa toxin molecule (from Clostridium botulinum type E) which acted as both prototype antigen and marker for its own entry, through its neurotoxic effects. Initially, toxin uptake was established as a function of dose by seeding serial toxin dilutions into small aquaria containing 4-10 cm goldfish (Carassius auratus). The possibility that gills or lateral lines were principal toxin entry points was ruled out by plugging fish oesophagi with a rubber-like, dental-impression compound. Toxin uptake was reduced nearly sixfold by this procedure. Water ingestion rates were measured by exposing groups of 8-10 cm fish for varying time intervals to a constant flow of water containing 0.2% toxic supernatant from a botulinum culture. The potency of this supernatant was determined simultaneously in additional fish by intragastric inoculation. The measured ingestion rate in 8-10 cm fish was at least 0.37 ml h-1 (with an additional 0.18 ml h-1 entering fish either by other routes or leaking past the oesophageal plugs). Therefore, if goldfish were immersed for 2 min in a bath containing 2 times 10-10 bacteria ml-1, their gastrointestinal tract would accumulate at least 2.5 times 10-8 bacteria.

15/7/7 (Item 3 from file: 5)
DIALOG(R)File 5:BIOSIS PREVIEWS(R)

4941435 BIOSIS Number: 80068746
MONOCLONAL ANTIBODY-BASED IMMUNOASSAY FOR TYPE A CLOSTRIDIUM-BOTULINUM TOXIN IS COMPARABLE TO THE MOUSE BIOASSAY
SHONE C; WILTON-SMITH P; APPLETON N; HAMBLETON P; MODI N; GATLEY S; MELLING J
VACCINE RES. PRODUCTION LAB., CENT. APPLIED MICROBIOL. RES., PORTON DOWN, SALISBURY.
APPL ENVIRON MICROBIOL 50 (1). 1985. 63-67. CODEN: AEMID
Full Journal Title: Applied and Environmental Microbiology
Language: ENGLISH
A monoclonal antibody (BA11) was produced against G. botulinum type A neurotoxin by the fusion of myeloma cells (P3 NS1/1-Ag4-1) with spleen cells from BALB/c mice immunized with botulinum type A neurotoxoid. The antibody bound specifically to botulinum type A neurotoxin , showing no cross-reactivity with types B and E botulinum toxins or with any of several other bacterial toxins tested. The monoclonal antibody did not bind to botulinum type A neurotoxin which was denatured with sodium dodecyl sulfate and bound only weakly to each of the separated heavy and light subunits of the neurotoxin, suggesting a conformational requirement for the antigenic determinant of the antibody. A sensitive immunoassay for C. botulinum type A toxin with monoclonal antibody BA11 in conjunction with an enzyme amplication system was developed which allows detection of 5-10 mouse 50% lethal doses ml-1 of purified neurotoxin. The assay was equally sensitive when applied to the detection of crude toxin in foodstuffs; the average value for the minimum level of detectable toxin in extracts of tinned salmon or corned beef was 9 .+-. 3.1 mouse 50% lethal doses ml-1.

15/7/8 (Item 4 from file: 5)

DIALOG(R)File 5:BIOSIS PREVIEWS(R)

4470806 BIOSIS Number: 78044629
DETECTION OF CLOSTRIDIUM-BOTULINUM TYPE A TOXIN BY ENZYME LINKED IMMUNO SORBENT ASSAY ELISA WITH ANTIBODIES PRODUCED IN IMMUNOLOGICALLY TOLERANT ANIMALS
DEZFULIAN M; BARTLETT J G
INFECTIOUS DISEASE DIV., DEP. MED., JOHNS HOPKINS UNIV. SCH. MED., BALTIMORE, MD. 21205.
J CLIN MICROBIOL 19 (5). 1984. 645-648. CODEN: JCMID
Full Journal Title: Journal of Clinical Microbiology
Language: ENGLISH
Immunological tolerance is a state of unresponsiveness to foreign substances (antigens) which can develop in human and animal species as the result of continued exposure to antigens early in life. This principle was used for the preparation of antibodies against C. botulinum type A toxin . By selective suppression of the immunological response of rabbits to unwanted antigens and subsequent immunization with a toxoid, a specific type A antitoxin was produced without the need to purify the toxin. Despite cross-reactivity with C. botulinum type B, the type A antitoxin was otherwise specific since it did not react with culture filtrates of nontoxigenic variants of type B, any other C. botulinum type (C, D, E, F and G), nor with 18 other Clostridium spp., including C. sporogenes. Using this antitoxin, a sensitive ELISA for detection of C. botulinum type A toxin was developed.

15/7/9 (Item 1 from file: 350)
DIALOG(R)File 350:Derwent World Pat.

000511659 WPI Acc No: 66-12202F/00
XRAM Acc No: C66-F12202
Botulinum antitoxin type c
Patent Assignee: (VORO) VORO; ( ) VOROB'EVA A
Number of Patents: 001
Patent Family:

CC	Number	Kind	Date	Week	
SU	158990	A	000000	6800	(Basic)

Priority Data (CC No Date): SU 667299 (600518)
Abstract (Basic): A Botulinum type C antitoxin with increased immunising power due to increased antigen. 1 ml. of the new antitoxin contains not less than 1500 EC/mg. of total N and not more than 5 mg. Al(OH)3.

Cl. botulinum type C is cultured for 120-144 hrs. at 34 deg. in a medium contng. approx. 30% casein hydrolysate, 3% maize extract and 67% H2O. Cultivation must be under vacuum of 30" Hg or in a free flow of gas through a cotton wool filter. The culture must be microscopically pure and sown on a nutrient medium for aerobic bacteria. It should contain not less than 300000 MLD (mice) of type C toxin per ml. Purify and concentrate the toxin by pptn. from the culture with acid in the presence of Na hexametaphosphate. Wash the ppt. with H2O then extract with a succinic-borate buffer soln. and filter through a sterile pad. The filtrate should have an activity of not less than 4 X 106 MLD/mg. of total N and should contain 20-50 mg. % of total N
Derwent Class: B;
?

May 28, 96

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=> s polypetide(s) bound(w)cholera toxin
           42 POLYPETIDE
       223671 BOUND
         6956 CHOLERA
        39224 TOXIN
         5441 CHOLERA TOXIN
                (CHOLERA(W)TOXIN)
L1          0 POLYPETIDE(S) BOUND(W)CHOLERA TOXIN

=> s neurotoxins botulinun
         2164 NEUROTOXINS
            2 BOTULINUN
L2          0 NEUROTOXINS BOTULINUN
                (NEUROTOXINS(W)BOTULINUN)

=> s polypetptides of botulinum
            1 POLYPETPTIDES
         2321 BOTULINUM
L3          0 POLYPETPTIDES OF BOTULINUM
                (POLYPETPTIDES(1W)BOTULINUM)

=> s vaccines or immunotoxins of botulinum
        12701 VACCINES
          962 IMMUNOTOXINS
         2321 BOTULINUM
            0 IMMUNOTOXINS OF BOTULINUM
                (IMMUNOTOXINS(1W)BOTULINUM)
L4      12701 VACCINES OR IMMUNOTOXINS OF BOTULINUM

=> d l4 200-205
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of Botulinum

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L4   ANSWER 200 OF 12701  CAPLUS  COPYRIGHT 1996 ACS
AN   1996:202432  CAPLUS
DN   124:257763
TI   T-cell epitope determination
AU   Walden, Peter
CS   Dermatologische Klinik, Charite, Humboldt-Univ., Berlin, D-10117,
     Germany
SO   Curr. Opin. Immunol. (1996), 8(1), 68-74
     CODEN: COPIEL; ISSN: 0952-7915
DT   Journal; General Review
LA   English

L4   ANSWER 201 OF 12701  CAPLUS  COPYRIGHT 1996 ACS
AN   1996:201585  CAPLUS
DN   124:286329
TI   A continuous epitope from transmissible gastroenteritis virus S
     protein fused to E. coli heat-labile toxin B subunit expressed by
     attenuated Salmonella induces serum and secretory immunity
AU   Smerdou, Cristian; Anton, Ines M.; Plana, Juan; Curtiss, Roy, III;
     Enjuanes, Luis
CS   Department of Molecular and Cell Biology, Centro Nacional de
     Biotecnologia, CSIC, Campus Universidad Autonoma, Canto Blanco,
     Madrid, 28049, Spain
SO   Virus Res. (1996), 41(1), 1-9
     CODEN: VIREDF; ISSN: 0168-1702
DT   Journal
LA   English
```

L4 ANSWER 202 OF 12701 CAPLUS COPYRIGHT 1996 ACS
AN 1996:201584 CAPLUS
DN 124:286328
TI Purification, characterization and immunogenicity of recombinant varicella-zoster virus glycoprotein gE secreted by Chinese hamster ovary cells
AU Haumont, Michele; Jacquet, Alain; Massaer, Marc; Deleersnyder, Virginie; Mazzu, Pasqualina; Bollen, Alex; Jacobs, Paul
CS Applied Genetics, Free University of Brussels, 24 rue de l'Industrie, B1400-Nivelles, Belg.
SO Virus Res. (1996), 40(2), 199-204
CODEN: VIREDF; ISSN: 0168-1702
DT Journal
LA English

L4 ANSWER 203 OF 12701 CAPLUS COPYRIGHT 1996 ACS
AN 1996:201583 CAPLUS
DN 124:286327
TI The bovine herpesvirus type 1 major tegument protein VP8 expressed in recombinant vaccinia virus does not induce significant immunity in mice
AU LaBoissiere, Sylvie; Trudel, Michel; Simard, Claire
CS Centre de Recherche en Virologie, Institut Armand-Frappier, Universite du Quebec, 531 Boulevard des Prairies, Laval, H7V 1B7, Can.
SO Virus Res. (1996), 40(2), 191-8
CODEN: VIREDF; ISSN: 0168-1702
DT Journal
LA English

L4 ANSWER 204 OF 12701 CAPLUS COPYRIGHT 1996 ACS
AN 1996:201575 CAPLUS
DN 124:298546
TI Detection of contamination of **vaccines** with the reticuloendotheliosis virus by reverse transcriptase polymerase chain reaction (RT-PCR)
AU Takagi, Masami; Ishikawa, Kiyoyasu; Nagai, Hideki; Sasaki, Takusi; Gotoh, Kisako; Koyama, Hiroyuki
CS National Veterinary Assay Laboratory, 1-15-1 Tokura, Kokubunji-shi, Tokyo, 185, Japan
SO Virus Res. (1996), 40(2), 113-21
CODEN: VIREDF; ISSN: 0168-1702
DT Journal
LA English

L4 ANSWER 205 OF 12701 CAPLUS COPYRIGHT 1996 ACS
AN 1996:201374 CAPLUS
DN 124:286326
TI OvB20, an Onchocerca volvulus-cloned antigen selected by differential immunoscreening with vaccination serum in a cattle model of onchocerciasis
AU Abdel-Wahab, Nadia; Kuo, Yien-Ming; Wu, Yang; Tuan, Rocky S.; Bianco, Albert E.
CS Imperial College of Science, Technology and Medicine, London, UK
SO Mol. Biochem. Parasitol. (1996), 76(1,2), 187-99
CODEN: MBIPDP; ISSN: 0166-6851
DT Journal
LA English

=> d l4 500-510

L4 ANSWER 500 OF 12701 CAPLUS COPYRIGHT 1996 ACS
AN 1996:99488 CAPLUS
DN 124:127158
TI Medicinal compositions for biologically active peptides
IN Sekine, Takashi; Ishikawa, Kazuyuki; Kimura, Takayoshi; Nakai, Yoshinobu
PA Tsumura and Co., Japan
SO PCT Int. Appl., 29 pp.
CODEN: PIXXD2
PI WO 9533474 A1 951214
DS W: JP, US
RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE
AI WO 95-JP1085 950602
PRAI JP 94-145605 940603
DT Patent
LA Japanese

L4 ANSWER 501 OF 12701 CAPLUS COPYRIGHT 1996 ACS
AN 1996:99287 CAPLUS
DN 124:143067
TI Protection against lethal simian immunodeficiency virus SIVsmmPBj14 disease by a recombinant Semliki Forest virus gp160 vaccine and by a gp120 subunit vaccine
AU Mossman, Sally P.; Bex, Francoise; Berglund, Peter; Arthos, James; O'Neil, Shawn P.; Riley, David; Maul, Donald H.; Bruck, Claudine; Momin, Patricia; et al.
CS Dep. Pathology, Colorado State Univ., Fort Collins, CO, 80523, USA
SO J. Virol. (1996), 70(3), 1953-60
CODEN: JOVIAM; ISSN: 0022-538X
DT Journal
LA English

L4 ANSWER 502 OF 12701 CAPLUS COPYRIGHT 1996 ACS
AN 1996:99234 CAPLUS
DN 124:143436
TI Replication and pathogenicity of human immunodeficiency virus type 1 accessory gene mutants in SCID-hu mice
AU Aldrovandi, Grace M.; Zack, Jerome A.
CS Div. Hematol.-Oncol., UCLA Sch. Med. Jonsson Comprehensive Cancer Cent., Los Angeles, CA, 90095-1678, USA
SO J. Virol. (1996), 70(3), 1505-11
CODEN: JOVIAM; ISSN: 0022-538X
DT Journal
LA English

L4 ANSWER 503 OF 12701 CAPLUS COPYRIGHT 1996 ACS
AN 1996:98331 CAPLUS
DN 124:199849
TI Pneumococcal polysaccharide vaccine in children with chronic renal disease: a prospective study of antibody response and duration
AU Furth, Susan L.; Neu, Alicia M.; Case, Barbara; Lederman, Howard M.; Steinhoff, Mark; Fivush, Barbara
CS Sch. Med., Johns Hopkins Univ., Baltimore, MD, USA
SO J. Pediatr. (St. Louis) (1996), 128(1), 99-101
CODEN: JOPDAB; ISSN: 0022-3476
DT Journal
LA English

L4 ANSWER 504 OF 12701 CAPLUS COPYRIGHT 1996 ACS

AN 1996:98191 CAPLUS
DN 124:143065
TI Regulation of mucosal and systemic antibody responses by T helper cell subsets, macrophages, and derived cytokines following oral immunization with live recombinant Salmonella
AU VanCott, John L.; Staats, Herman F.; Pascual, David W.; Roberts, Mark; Chatfield, Steven N.; Yamamoto, Masafumi; Coste, Michel; Carter, Philip B.; Kiyono, Hiroshi; McGhee, Jerry R.
CS Immunobiology Vaccine Center, Univ. Alabama Med. Center, Birmingham, AL, 35294, USA
SO J. Immunol. (1996), 156(4), 1504-14
CODEN: JOIMA3; ISSN: 0022-1767
DT Journal
LA English

L4 ANSWER 505 OF 12701 CAPLUS COPYRIGHT 1996 ACS
AN 1996:97307 CAPLUS
DN 124:127117
TI Method of purifying necrotoxin produced by Bordetella and toxoid preparation
IN Kawai, Toru; Ushijima, Toshihiro; Takase, Kozo; Fujikawa, Hideo
PA Juridical Foundation the Chemo-Sero-Therapeutic Research Institute, Japan
SO PCT Int. Appl., 55 pp.
CODEN: PIXXD2
PI WO 9534322 A1 951221
DS W: CA, CN, JP, US
RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE
AI WO 95-JP1125 950607
PRAI JP 94-152834 940610
DT Patent
LA Japanese

L4 ANSWER 506 OF 12701 CAPLUS COPYRIGHT 1996 ACS
AN 1996:96855 CAPLUS
DN 124:143418
TI A "complement-ary" AIDS vaccine
AU Dierich, Manfred P.; Stoiber, Heribert; Clivio, Alberto
CS Institut Hygiene Ludwig Boltzmann-Institut AIDS-Forschung, Innsbruck, Austria
SO Nat. Med. (N. Y.) (1996), 2(2), 153-5
CODEN: NAMEFI; ISSN: 1078-8956
DT Journal
LA English

L4 ANSWER 507 OF 12701 CAPLUS COPYRIGHT 1996 ACS
AN 1996:96454 CAPLUS
DN 124:166564
TI Strain-specific reverse transcriptase PCR assay: means to distinguish candidate vaccine from wild-type strains of respiratory syncytial virus
AU Zheng, Haoqiang; Peret, Teresa C. T.; Randolph, Valerie B.; Crowley, Joan C.; Anderson, Larry J.
CS Div. Viral Rickettsial Disease, Center Infectious Diseases, Atlanta, GA, 30333, USA
SO J. Clin. Microbiol. (1996), 34(2), 334-7
CODEN: JCMIDW; ISSN: 0095-1137
DT Journal
LA English

L4 ANSWER 508 OF 12701 CAPLUS COPYRIGHT 1996 ACS
AN 1996:95149 CAPLUS
DN 124:140405
TI Method for selectively inducing biomarker expression in urologic tumor tissue for diagnosis and treatment thereof
IN Marley, Garry M.; Veltri, Robert W.
PA Urocor, Inc., USA
SO PCT Int. Appl., 58 pp.
CODEN: PIXXD2
PI WO 9534637 A1 951221
DS W: AU, CA, JP
RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE
AI WO 95-US7126 950616
PRAI US 94-260554 940616
DT Patent
LA English

L4 ANSWER 509 OF 12701 CAPLUS COPYRIGHT 1996 ACS
AN 1996:94776 CAPLUS
DN 124:197304
TI Peptides as active probes
AU Unden, A.; Bartfai, T.
CS Department Neurochemistry Neurotoxicology, Stockholm University, Stockholm, S-106 91, Swed.
SO EXS (1995), 73(Interface Between Chemistry and Biochemistry), 229-55
CODEN: EXSEE7; ISSN: 1023-294X
DT Journal; General Review
LA English

L4 ANSWER 510 OF 12701 CAPLUS COPYRIGHT 1996 ACS
AN 1996:93093 CAPLUS
DN 124:200065
TI High-efficiency transfer of the T cell co-stimulatory molecule B7-2 to lymphoid cells using high-titer recombinant adeno-associated virus vectors
AU Chiorini, John A.; Wendtner, Clemens M.; Urcelay, Elena; Safer, Brian; Hallek, Michael; Kotin, Robert M.
CS Molecular Hematology Branch, National Heart, Lung and Blood Institute, Bethesda, MD, 20892, USA
SO Hum. Gene Ther. (1995), 6(12), 1531-41
CODEN: HGTHE3; ISSN: 1043-0342
DT Journal
LA English

=> d l4 700-710

L4 ANSWER 700 OF 12701 CAPLUS COPYRIGHT 1996 ACS
AN 1996:30081 CAPLUS
DN 124:84894
TI Vaccine containing a protein-alkaloid conjugate for the treatment of fescue toxicosis
IN Reddick, Bradford B.; Gwinn, Kimberly D.; Oliver, Jack W.
PA The University of Tennessee Research Corporation, USA
SO U.S., 4 pp. Cont. of U.S.Ser.No. 823,146, abandoned.
CODEN: USXXAM
PI US 5468486 A 951121
AI US 94-205194 940303
PRAI US 92-823146 920121
DT Patent
LA English

L4 ANSWER 701 OF 12701 CAPLUS COPYRIGHT 1996 ACS
AN 1996:30036 CAPLUS
DN 124:84893
TI Tumor-associated antigen peptides and their use in tumor diagnosis and therapy
IN Eisenbach, Lea; Berke, Gideon; Feldman, Michael; Fridkin, Matityahu; Mandelboim, Ofer
PA Yeda Research and Development Co., Ltd., Israel; Rycus, Avigail
SO PCT Int. Appl., 44 pp.
CODEN: PIXXD2
PI WO 9529698 A1 951109
DS W: CA, HU, JP, US
RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE
AI WO 95-US4912 950503
PRAI IL 94-109540 940503
DT Patent
LA English

L4 ANSWER 702 OF 12701 CAPLUS COPYRIGHT 1996 ACS
AN 1996:29588 CAPLUS
DN 124:108000
TI Characterization of an internal permissive site in the cholera toxin B-subunit and insertion of epitopes from human immunodeficiency virus-1, hepatitis B virus and enterotoxigenic Escherichia coli
AU Baeckstroem, Malin; Holmgren, Jan; Schoedel, Florian; Lebens, Michael
CS Dep. of medical Microbiology and Immunology, Goeteborg Univ., Goeteborg, Swed.
SO Gene (1995), 165(2), 163-71
CODEN: GENED6; ISSN: 0378-1119
DT Journal
LA English

L4 ANSWER 703 OF 12701 CAPLUS COPYRIGHT 1996 ACS
AN 1996:27839 CAPLUS
TI Development of a sustainable chick cell line infected with Marek's disease virus
AU Abujoub, Amin; Coussens, Paul M.
CS Deps. of Animal Science and Microbiology, Michigan State Univ., East Lansing, Mich., MI, 48824, USA
SO Virology (1995), 214(2), 541-9
CODEN: VIRLAX; ISSN: 0042-6822
DT Journal
LA English

L4 ANSWER 704 OF 12701 CAPLUS COPYRIGHT 1996 ACS
AN 1996:27238 CAPLUS
DN 124:84959
TI Production of parvovirus B19 vaccine in insect cells co-infected with double baculoviruses
AU Tsao, Eric I.; Mason, Michael R.; Cacciuttolo, Marco A.; Bowen, Stephen H.; Folena-Wasserman, Gail
CS Dep. Process Cell Culture and Fermentation, MedImmune, Inc., Gaithersburg, MD, 20878, USA
SO Biotechnol. Bioeng. (1996), 49(2), 130-8
CODEN: BIBIAU; ISSN: 0006-3592
DT Journal
LA English

L4 ANSWER 705 OF 12701 CAPLUS COPYRIGHT 1996 ACS
AN 1996:27135 CAPLUS
DN 124:84277
TI Development, validation and acceptance of alternative methods in the quality control of **vaccines**: a case report
AU Hendriksen, C. F. M.
CS National Inst. Public Health Environmental Protection, Bilthoven, Neth.
SO Toxicol. in Vitro (1995), 9(6), 815-19
CODEN: TIVIEQ; ISSN: 0887-2333
DT Journal
LA English

L4 ANSWER 706 OF 12701 CAPLUS COPYRIGHT 1996 ACS
AN 1996:26083 CAPLUS
DN 124:137106
TI Molecular characterization of the gp120 encoding region of a new subtype A strain of HIV-1 (HIV-1 IbNg) from Nigeria
AU Howard, T. M.; Olaleye, O. D.; Rasheed, S.
CS School of Medicine, University of Southern California, Los Angeles, CA, 90032-3626, USA
SO Biokemistri (1995), Volume Date 1995, 5(1), 61-74
CODEN: BIOKE3; ISSN: 0795-8080
DT Journal
LA English

L4 ANSWER 707 OF 12701 CAPLUS COPYRIGHT 1996 ACS
AN 1996:25269 CAPLUS
DN 124:66569
TI Group A streptococcal polysaccharide immunogenic compositions and methods
IN Blake, Milan S.; Zabriskie, John B.; Tai, Joseph Y.; Michon, Francis
PA Rockefeller University, USA; North American Vaccine, Inc.
SO PCT Int. Appl., 66 pp.
CODEN: PIXXD2
PI WO 9528960 A1 951102
DS W: AM, AT, AU, BB, BG, BR, BY, CA, CH, CN, CZ, DE, DK, EE, ES, FI, GB, GE, HU, IS, JP, KE, KG, KP, KR, KZ, LK, LR, LT, LU, LV, MD, MG, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, TJ, TT, UA
RW: AT, BE, BF, BJ, CF, CG, CH, CI, CM, DE, DK, ES, FR, GA, GB, GR, IE, IT, LU, MC, ML, MR, NE, NL, PT, SE, SN, TD, TG
AI WO 95-US4973 950420
PRAI US 94-231229 940421
DT Patent
LA English

L4 ANSWER 708 OF 12701 CAPLUS COPYRIGHT 1996 ACS
AN 1996:23655 CAPLUS
DN 124:114821
TI Highly attenuated SIVmac142 is immunogenic but does not protect against SIVmac251 challenge
AU Denesvre, Caroline; Grand, Roger Le; Boissin-Cans, Florence; Chakrabarti, Lisa; Hurtrel, Bruno; Vaslin, Bruno; Dormont, Dominique; Sonigo, Pierre
CS CNRS, Institut Cochin de Genetique Moleculaire, Paris, 75014, Fr.
SO AIDS Res. Hum. Retroviruses (1995), 11(11), 1397-406
CODEN: ARHRE7; ISSN: 0889-2229
DT Journal
LA English

L4 ANSWER 709 OF 12701 CAPLUS COPYRIGHT 1996 ACS
AN 1996:22943 CAPLUS
DN 124:142793
TI HIV preventive **vaccines**: Progress to date
AU Esparza, Jose; Osmanov, Saladin; Heyward, William L.
CS Global Programme AIDS, World Health Organization, Genoa, Switz.
SO Drugs (1995), 50(5), 792-804
CODEN: DRUGAY; ISSN: 0012-6667
DT Journal; General Review
LA English

L4 ANSWER 710 OF 12701 CAPLUS COPYRIGHT 1996 ACS
AN 1996:22406 CAPLUS
DN 124:84276
TI Treatment of established tumors with a novel vaccine that enhances major histocompatibility class II presentation of tumor antigen
AU Lin, Ken-Yu; Guarnieri, Frank G.; Staveley-O'Carroll, Kevin F.; Levitsky, Hyam I.; August, J. Thomas; Pardoll, Drew M.
CS Departments of Pathology, Pharmacology and Molecular Science, Surgery and Oncology, The Johns Hopkins Medical Institutions, Baltimore, MD, 21287-6417, USA
SO Cancer Res. (1996), 56(1), 21-6
CODEN: CNREA8; ISSN: 0008-5472
DT Journal
LA English

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L4 ANSWER 900 OF 12701 CAPLUS COPYRIGHT 1996 ACS
AN 1995:969984 CAPLUS
DN 124:53199
TI Clonal antibody dominance after influenza vaccination in IgA nephropathy patients and controls
AU Radl, Jiri; Hoogeveen, Cornelia M.; van den Wall Bake, A.W.L.; Mestecky, Jiri
CS IVVO-TNO, Leiden, Neth.
SO Adv. Exp. Med. Biol. (1995), Volume Date 1995, 371B, 829-34
CODEN: AEMBAP; ISSN: 0065-2598
DT Journal
LA English

L4 ANSWER 901 OF 12701 CAPLUS COPYRIGHT 1996 ACS
AN 1995:969979 CAPLUS
DN 124:84182
TI Immunity to Pseudomonas aeruginosa induced by OprF following intestinal immunization
AU Cripps, Allan W.; Dunkley, Margaret L.; Taylor, Diana C.; Cousins, Stephen; Clancy, Robert L.
CS Hunter Area Pathology Service, Newcastle, 2310, Australia
SO Adv. Exp. Med. Biol. (1995), Volume Date 1995, 371B, 761-3
CODEN: AEMBAP; ISSN: 0065-2598
DT Journal
LA English

L4 ANSWER 902 OF 12701 CAPLUS COPYRIGHT 1996 ACS
AN 1995:969738 CAPLUS
DN 123:350227
TI Method for preparing antiviral **vaccines**
IN Guseva, E. V.; Gusev, A. A.; Dudnikov, S. A.; Onufriev, V. P.;

Dudnikov, A. I.; Sh[redacted]hnev, V. I.; Bondarenko, [redacted] F.; Pronin, I. A.
PA Vsesoyuznyj Nauchno-[redacted]ssledovatelskij Yashchurnyj Institut, USSR
SO U.S.S.R.
From: Izobreteniya 1995, (16), 239.
CODEN: URXXAF
PI SU 991634 A1 950609
AI SU 80-2935342 800605
DT Patent
LA Russian

L4 ANSWER 903 OF 12701 CAPLUS COPYRIGHT 1996 ACS
AN 1995:969717 CAPLUS
DN 123:350226
TI Method for producing vaccine against duck virus hepatitis
IN Nestiforova, Marina V.; Kis, Tatyana B.; Smolenskij, Vladimir I.; Trubitsyn, Boris I.; Zubtsova, Raisa A.
PA Vserossijskij Gosudarstvennyj Nauchno-Issledovatelskij Institut Kontrolya, Standartizatsii i Sertifikatsii Veterinarnykh Preparatov, Russia
SO Russ.
From: Izobreteniya 1995, (15), 101-2.
CODEN: RUXXE7
PI RU 2035918 C1 950527
AI RU 91-5006797 911023
PRAI SU 91-5006797 911023
DT Patent
LA Russian

L4 ANSWER 904 OF 12701 CAPLUS COPYRIGHT 1996 ACS
AN 1995:969716 CAPLUS
DN 123:350225
TI Vaccine and method to prevent Newcastle disease in birds
IN Tokarik, Eleonora F.; Skotnikova, Tatyana A.; Kovalskaya, Larisa A.; Smolenskij, Vladimir I.; Shevyrev, Nikolaj S.; Samujlenko, Anatolij Ya.
PA USSR
SO Russ.
From: Izobreteniya 1995, (15), 101.
CODEN: RUXXE7
PI RU 2035917 C1 950527
AI RU 92-92014928 921228
DT Patent
LA Russian

L4 ANSWER 905 OF 12701 CAPLUS COPYRIGHT 1996 ACS
AN 1995:969121 CAPLUS
DN 124:6613
TI Immunization of dairy cows with an Escherichia coli J5 lipopolysaccharide vaccine
AU Tomita, G. M.; Todhunter, D. A.; Hogan, J. S.; Smith, K. L.
CS Dep. Anim. Sci., Ohio State Univ., Wooster, OH, 44691, USA
SO J. Dairy Sci. (1995), 78(10), 2178-85
CODEN: JDSCAE; ISSN: 0022-0302
DT Journal
LA English

L4 ANSWER 906 OF 12701 CAPLUS COPYRIGHT 1996 ACS
AN 1995:967740 CAPLUS
TI Erratum to PCR restriction analysis of genome composition and stability of cold-adapted reassortant live influenza

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AU Klimov, Alexander I.; Cox, Nancy J.
CS Influenza Branch, G-16, Division of Viral and Rickettsial Diseases, National Center for Infectious Diseases, Centers for Disease Control and Prevention, Atlanta, USA, USA
SO J. Virol. Methods (1995), 55(3), 445-6
CODEN: JVMEDH; ISSN: 0166-0934
DT Journal; Errata
LA English

L4 ANSWER 907 OF 12701 CAPLUS COPYRIGHT 1996 ACS
AN 1995:967430 CAPLUS
DN 124:2555
TI Cloning of canine herpesvirus gB, gC and gD genes, vectors for expression of the glycoproteins, and **vaccines** comprising these vectors
IN Paoletti, Enzo; Limbach, Keith Jeffrey
PA Virogenetics Corp., USA
SO PCT Int. Appl., 243 pp.
CODEN: PIXXD2
PI WO 9526751 A1 951012
DS W: AU, CA, JP
RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE
AI WO 95-US3982 950330
PRAI US 94-220151 940330
US 95-413118 950329
DT Patent
LA English

L4 ANSWER 908 OF 12701 CAPLUS COPYRIGHT 1996 ACS
AN 1995:966065 CAPLUS
TI development and Clinical Uses of Haemophilus b Conjugate **Vaccines** by R. W. Ellis, R. W. and D. M. Granoff, Eds
AU Begg, N.
CS PHLS Communicable Dis. Surveillance Cent., London, UK, NW9 5EG, UK
SO J. Antimicrob. Chemother. (1995), 36(5), 882
CODEN: JACHDX; ISSN: 0305-7453
DT Journal; Book Review
LA English

L4 ANSWER 909 OF 12701 CAPLUS COPYRIGHT 1996 ACS
AN 1995:965713 CAPLUS
DN 124:24969
TI Benefits of advanced gel electrophoresis data analysis methods
AU Tietz, Dietmar
CS National Institutes of Health, Bethesda, MD, 20892, USA
SO Appl. Theor. Electrophor. (1995), 5(2), 107-11
CODEN: ATELEM; ISSN: 0954-6642
DT Journal; General Review
LA English

L4 ANSWER 910 OF 12701 CAPLUS COPYRIGHT 1996 ACS
AN 1995:964522 CAPLUS
DN 124:2578
TI Immunodiagnosis and immunotherapy of tetanus and botulinum neurotoxins
AU Middlebrook, J.L.; Brown, J.E.
CS Toxinology Division, U.S. Army Medical Research Institute of Infectious Diseases, Frederick, MD, 21702, USA
SO Curr. Top. Microbiol. Immunol. (1995), Volume Date 1995, 195, 89-122

CODEN: CTMIA3; ISSN: 0070-217X
DT Journal; General Review
LA English

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L4 ANSWER 1100 OF 12701 CAPLUS COPYRIGHT 1996 ACS
AN 1995:890960 CAPLUS
DN 124:15323
TI Protective activity of vaccinia virus envelope proteins isolated with the use of nonionic detergents
AU Muravlev, A. I.; Agafonov, A. P.; Reshetnikov, S. S.; Lavrinenko, I. A.; Cheshenko, I. O.; Beklemishev, A. B.
CS UNII Mol. Biol., Russia
SO Vopr. Virusol. (1995), 40(4), 154-8
CODEN: VVIRAT; ISSN: 0507-4088
DT Journal
LA Russian

L4 ANSWER 1101 OF 12701 CAPLUS COPYRIGHT 1996 ACS
AN 1995:890197 CAPLUS
DN 123:278079
TI Use of the promoter of the heat-shock gene htrA for expression of antigen genes in vaccine strains of bacteria
IN Khan, Mohammed Anjam; Chatfield, Steven Neville; Li, Jingli
PA Medeva Holdings B.V., Neth.
SO PCT Int. Appl., 54 pp.
CODEN: PIXXD2
PI WO 9520665 A1 950803
DS W: AM, AT, AU, BB, BG, BR, BY, CA, CH, CN, CZ, DE, DK, EE, ES, FI, GB, GE, HU, JP, KE, KG, KP, KR, KZ, LK, LR, LT, LU, LV, MD, MG, MN, MW, MX, NL, NO, NZ, PL, PT, RO, RU, SD, SE, SI, SK, TJ, TT, UA, US
RW: AT, BE, BF, BJ, CF, CG, CH, CI, CM, DE, DK, ES, FR, GA, GB, GR, IE, IT, LU, MC, ML, MR, NE, NL, PT, SE, SN, TD, TG
AI WO 95-GB196 950131
PRAI GB 94-1795 940131
DT Patent
LA English

L4 ANSWER 1102 OF 12701 CAPLUS COPYRIGHT 1996 ACS
AN 1995:890196 CAPLUS
DN 123:308192
TI Mammalian expression systems for manufacture of hepatitis C virus envelope proteins for therapeutic uses
IN Watanabe, Shinichi; Yamaguchi, Julie; Desai, Suresh M.; Devare, Sushil G.
PA Abbott Laboratories, USA
SO PCT Int. Appl., 89 pp.
CODEN: PIXXD2
PI WO 9520664 A2 950803
DS W: AU, CA, JP
RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE
AI WO 95-US1087 950127
PRAI US 94-188281 940128
DT Patent
LA English

L4 ANSWER 1103 OF 12701 CAPLUS COPYRIGHT 1996 ACS
AN 1995:888905 CAPLUS

DN 124:249259
TI New Horizons for medicine based on genetic engineering
AU Werner, R. G.
CS A Biotechnische Produktion, D-88397, Germany
SO Arzneim.-Forsch. (1995), 45(9), 1040-7
CODEN: ARZNAD; ISSN: 0004-4172
DT Journal; General Review
LA English

L4 ANSWER 1104 OF 12701 CAPLUS COPYRIGHT 1996 ACS
AN 1995:888040 CAPLUS
DN 123:283629
TI Compositions and methods for eliciting cytotoxic T lymphocyte immunity
IN Vitiello, Maria A.; Chesnut, Robert W.; Sette, Alessandro D.; Celis, Esteban; Grey, Howard
PA Cytel Corp., USA
SO PCT Int. Appl., 108 pp.
CODEN: PIXXD2
PI WO 9522317 A1 950824
DS W: AM, AT, AU, BB, BG, BR, BY, CA, CH, CN, CZ, DE, DK, EE, ES, FI, GB, GE, HU, JP, KE, KG, KP, KR, KZ, LK, LR, LT, LU, LV, MD, MG, MN, MW, MX, NL, NO, NZ, PL, PT, RO, RU, SD, SE, SI, SK, TJ, TT, UA, UG
RW: AT, BE, BF, BJ, CF, CG, CH, CI, CM, DE, DK, ES, FR, GA, GB, GR, IE, IT, LU, MC, ML, MR, NE, NL, PT, SE, SN, TD, TG
AI WO 95-US2121 950216
PRAI US 94-197484 940216
DT Patent
LA English

L4 ANSWER 1105 OF 12701 CAPLUS COPYRIGHT 1996 ACS
AN 1995:887165 CAPLUS
DN 123:296351
TI Fluorine in our arteries
AU Riess, Jean G.
CS Faculte Sciences, Universite Nice-Sophia Antipolis, Nice, 06108, Fr.
SO New J. Chem. (1995), 19(8-9), 891-909
CODEN: NJCHE5; ISSN: 1144-0546
DT Journal; General Review
LA French

L4 ANSWER 1106 OF 12701 CAPLUS COPYRIGHT 1996 ACS
AN 1995:887041 CAPLUS
DN 123:296472
TI Application of enteric-coated microcapsule in oral administration of bovine serum albumin into eel
AU Nagai, Akira; Fujino, Yasuhiro
CS Fac. Marine Sci. Technol., Tokai Univ., Shizuoka, 424, Japan
SO Fish. Sci. (1995), 61(5), 796-9
CODEN: FSCIEH; ISSN: 0919-9268
DT Journal
LA English

L4 ANSWER 1107 OF 12701 CAPLUS COPYRIGHT 1996 ACS
AN 1995:885547 CAPLUS
DN 123:283573
TI Protection against mycoplasma infection using expression-library immunization
AU Barry, Michael A.; Lai, Wayne C.; Johnston, Stephen Albert

CS Dep. Med., Univ. Tex[illegible], Dallas, TX, 75235-8573, [illegible]SA
SO Nature (London) (19[illegible]), 377(6550), 632-5
CODEN: NATUAS; ISSN: 0028-0836
DT Journal
LA English

L4 ANSWER 1108 OF 12701 CAPLUS COPYRIGHT 1996 ACS
AN 1995:883497 CAPLUS
DN 124:343
TI Structurally defined synthetic cancer **vaccines**: analysis of structure, glycosylation and recognition of cancer-associated mucin, MUC-1-derived peptides
AU Liu, Xiaohong; Sejbal, Jan; Kotovych, George; Koganty, R. Rao; Reddish, Mark A.; Jackson, Linda; Gandhi, Sham S.; Mendonca, Aubrey J.; Longenecker, B. Michael
CS Department of Chemistry, University of Alberta, Edmonton, AB, T6G 2G2, Can.
SO Glycoconjugate J. (1995), 12(5), 607-17
CODEN: GLJOEW; ISSN: 0282-0080
DT Journal
LA English

L4 ANSWER 1109 OF 12701 CAPLUS COPYRIGHT 1996 ACS
AN 1995:882952 CAPLUS
DN 123:283122
TI Immune protection conferred by the baculovirus-related glycoprotein of Thogoto virus (Orthomyxoviridae)
AU Jones, Linda D.; Morse, Mary A.; Marriott, Anthony C.; Nuttall, Patricia A.
CS NERC Inst. Virology Environ. Microbiol., Oxford, OX1 3SR, UK
SO Virology (1995), 213(1), 249-53
CODEN: VIRLAX; ISSN: 0042-6822
DT Journal
LA English

L4 ANSWER 1110 OF 12701 CAPLUS COPYRIGHT 1996 ACS
AN 1995:882939 CAPLUS
TI Pathogenesis and immunogenicity of bovine adenovirus type 3 in cotton rats (Sigmodon hispidus)
AU Mittal, Suresh K.; Middleton, Dorothy M.; Tikoo, Suresh K.; Babiuk, Lorne A.
CS Veterinary Infectious Dis. Org., Univ. Saskatchewan, Saskatoon, SK, S7N 5E3, Can.
SO Virology (1995), 213(1), 131-9
CODEN: VIRLAX; ISSN: 0042-6822
DT Journal
LA English

=> d l4 1220-1230

L4 ANSWER 1220 OF 12701 CAPLUS COPYRIGHT 1996 ACS
AN 1995:842990 CAPLUS
DN 123:296359
TI Cytokine-containing liposomes as adjuvants for HIV subunit **vaccines**
AU Lachman, Lawrence B.; Shih, Li-Chen N.; Mei Rao, Xiao; Hu, Xiaosha; Bucana, Corazon D.; Ullrich, Stephen E.; Cleland, Jeffrey L.
CS M. D. Anderson Cancer Center, University Texas, Houston, 77030, USA
SO AIDS Res. Hum. Retroviruses (1995), 11(8), 921-32
CODEN: ARHRE7; ISSN: 0889-2229

DT Journal
LA English

L4 ANSWER 1221 OF 12701 CAPLUS COPYRIGHT 1996 ACS
AN 1995:842989 CAPLUS
DN 123:283091
TI Highly attenuated HIV type 2 recombinant poxviruses, but not HIV-2 recombinant Salmonella **vaccines**, induce long-lasting protection in rhesus macaques
AU Franchini, Genoveffa; Robert-Guroff, Marjorie; Tartaglia, James; Aggarwal, Anita; Abimiku, Alash'le; Benson, John; Markham, Phillip; Limbach, Keith; Hurteau, Greg; et al.
CS National Cancer Institute, National Institutes Health, Bethesda, MD, 20892, USA
SO AIDS Res. Hum. Retroviruses (1995), 11(8), 909-20
CODEN: ARHRE7; ISSN: 0889-2229
DT Journal
LA English

L4 ANSWER 1222 OF 12701 CAPLUS COPYRIGHT 1996 ACS
AN 1995:842742 CAPLUS
DN 123:237790
TI Method of intranasally administering to bovines a trivalent vaccine containing modified live IBRV, PI3V and BRSV
IN Ciszewski, Daniel K.; Mcginley, Michael J.; Phillips, Connie S.; Schnurr, Michael J.
PA Miles Inc., USA
SO Can. Pat. Appl., 23 pp.
CODEN: CPXXEB
PI CA 2136677 AA 950630
AI CA 94-2136677 941125
PRAI US 93-175093 931229
DT Patent
LA English

L4 ANSWER 1223 OF 12701 CAPLUS COPYRIGHT 1996 ACS
AN 1995:842655 CAPLUS
DN 123:225929
TI Malaria merozoite antigen subunit vaccine
IN Anders, Robin Fredric; Crewther, Pauline Elizabeth; Leet, Mary Shu Mai; Hodder, Anthony Neil; Pye, David
PA Saramane Pty. Ltd., Australia
SO PCT Int. Appl., 36 pp.
CODEN: PIXXD2
PI WO 9521192 A1 950810
DS W: AU, CA, JP, US
RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE
AI WO 95-AU49 950203
PRAI AU 94-3689 940204
DT Patent
LA English

L4 ANSWER 1224 OF 12701 CAPLUS COPYRIGHT 1996 ACS
AN 1995:842649 CAPLUS
DN 123:246823
TI Hydrophilic signal oligopeptides and methods of therapeutic use
IN Rath, Matthias
PA USA
SO PCT Int. Appl., 87 pp.
CODEN: PIXXD2

PI WO 9519568 A1 95077
DS W: AM, AT, AU, BB, [illegible], BR, BY, CA, CH, CN, CZ, [illegible]E, DK, ES, FI, GB, GE, HU, JP, KE, KG, KP, KR, KZ, LK, LT, LU, LV, MD, MG, MN, MW, MX, NL, NO, NZ, PL, PT, RO, RU, SD, SE, SI, SK, TJ, TT, UA, US, UZ, VN
RW: AT, BE, BF, BJ, CF, CG, CH, CI, CM, DE, DK, ES, FR, GA, GB, GR, IE, IT, LU, MC, ML, MR, NE, NL, PT, SE, SN, TD, TG
AI WO 95-US575 950112
PRAI US 94-182248 940114
DT Patent
LA English

L4 ANSWER 1225 OF 12701 CAPLUS COPYRIGHT 1996 ACS
AN 1995:842627 CAPLUS
DN 123:225943
TI Prevention and treatment of inflammation with immunoglobulin A
IN Eibl, Martha; Wolf, Hermann; Mannhalter, Josef W.; Leibl, Heinz; Linnau, Yendra
PA Immuno AG, Austria
SO Ger. Offen., 20 pp.
CODEN: GWXXBX
PI DE 19505287 A1 950824
AI DE 95-19505287 950216
PRAI US 94-198067 940218
DT Patent
LA German

L4 ANSWER 1226 OF 12701 CAPLUS COPYRIGHT 1996 ACS
AN 1995:841940 CAPLUS
DN 123:283195
TI Localization of epitopes for monoclonal antibodies at the N-terminus of the porcine zona pellucida glycoprotein pZPC
AU Gupta, S. K.; Yurewicz, Edward C.; Afzalpurkar, Abhijit; Rao, K. V. S.; Gage, Douglas A.; Wu, H.; Sacco, A. G.
CS Gamete Antigen Lab., Natl. Inst. Immunol., New Delhi, India
SO Mol. Reprod. Dev. (1995), 42(2), 220-5
CODEN: MREDEE; ISSN: 1040-452X
DT Journal
LA English

L4 ANSWER 1227 OF 12701 CAPLUS COPYRIGHT 1996 ACS
AN 1995:840836 CAPLUS
DN 123:253954
TI Inhaled Bordetella pertussis vaccine decreases airway responsiveness in guinea pigs
AU Vargas, Mario H.; Bazan-Perkins, Blanca; Segura, Patricia; Campos, Maria G.; Selman, Moises; Montano, Luis M.
CS Dep. de Investigacion en Asma, Inst. Nacional de Enfermedades Respiratorias, Mexico City, Mex.
SO Life Sci. (1995), 57(19), Pl293-PL299
CODEN: LIFSAK; ISSN: 0024-3205
DT Journal
LA English

L4 ANSWER 1228 OF 12701 CAPLUS COPYRIGHT 1996 ACS
AN 1995:840503 CAPLUS
DN 123:253950
TI Stimulation of a memory B cell response does not require primed helper T cells
AU Leclerc, Claude; Sedlik, Christine; Lo-Man, Richard; Charlot,

Bernadette; Rojas, M ie; Deriaud, Edith
CS Unite Biol. Regulati s Immunitaires, Inst. Pas ur, Paris, F-75015, Fr.
SO Eur. J. Immunol. (1995), 25(9), 2533-8
CODEN: EJIMAF; ISSN: 0014-2980
DT Journal
LA English

L4 ANSWER 1229 OF 12701 CAPLUS COPYRIGHT 1996 ACS
AN 1995:840284 CAPLUS
DN 123:283086
TI Isotype profiles induced in Balb/c mice during foot and mouth disease (FMD) virus infection or immunization with different FMD vaccine formulations
AU Filgueira, D. M. Perez; Berinstein, A.; Smitsaart, E.; Borca, M. V.; Sadir, A. M.
CS Centro de Investigaciones en Ciencias Veterinarias, Institute de Virologia, Buenos Aires, Argent.
SO Vaccine (1995), 13(10), 953-60
CODEN: VACCDE; ISSN: 0264-410X
DT Journal
LA English

L4 ANSWER 1230 OF 12701 CAPLUS COPYRIGHT 1996 ACS
AN 1995:840283 CAPLUS
DN 123:283085
TI Immunogenicity of the recombinant serine rich Entamoeba histolytica protein (SREHP) amebiasis vaccine in the african green monkey
AU Stanley, Samuel L. Jr.; Blanchard, James L.; Johnson, Nakiisa; Foster, Lynne; Kunz-Jenkins, Cindy; Zhang, Tonghai; Tian, Kairong; Cogswell, Frank B.
CS School Medicine, Washington University, St. Louis, MO, 63110, USA
SO Vaccine (1995), 13(10), 947-51
CODEN: VACCDE; ISSN: 0264-410X
DT Journal

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(c) format only 1996 Knight-Ridder Info
*File 155: The 1996 reload is now available.
Type: HELP NEWS 155 for details on the reload.

Set Items Description
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?s clostridium(w)botulinum

13491 CLOSTRIDIUM
3346 BOTULINUM
S1 1627 CLOSTRIDIUM(W)BOTULINUM
?s s1 and (vaccin? or immuniz?)

1627 S1
77723 VACCIN?
67762 IMMUNIZ?
S2 55 S1 AND (VACCIN? OR IMMUNIZ?)
?t s2/6/1-55

?t s2/7/3,4,5,15,28,29,40,44,47,48,53

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Hatheway CL
Division of Bacterial and Mycotic Diseases, Centers for Disease Control and Prevention, Atlanta, GA, USA.
Curr Top Microbiol Immunol (GERMANY) 1995, 195 p55-75, ISSN 0070-217X Journal Code: DWQ
Languages: ENGLISH
Document type: JOURNAL ARTICLE; REVIEW; REVIEW, TUTORIAL The main form of human botulism throughout the world is the classic foodborne intoxication. Would botulism is very rare, and most of the documented cases have been found in the United States. While infant botulism remains rare throughout the world, it has become the most frequent form of the disease in the United States in recent years. On very rare occasions botulism results from growth and toxin production in humans other than infants. Botulism occurs in animals with much higher frequency. The causative organisms constitute a diverse group of clostridia, resulting in nomenclature problems. Human botulism is largely limited to toxin types A, B, and E, while type C botulism predominates in avian and nonhuman mammalian species. The diagnosis of botulism is made on the basis of the neurologic signs and symptoms that it causes in humans and animals. The diagnosis is confirmed by tests that identify the toxin and toxigenic organisms in patient and food specimens. Treatment includes supportive intensive care and use of therapeutic antitoxin. (80 Refs.)

2/7/4
DIALOG(R)File 155:MEDLINE(R)
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09380035 95310035
Protective ***vaccination*** with a recombinant fragment of ***Clostridium*** ***botulinum*** neurotoxin serotype A expressed from a synthetic gene in Escherichia coli.

Clayton MA; Clayton JM; Brown DR; Middlebrook JL

Toxinology Division, U.S. Army Medical Research Institute of Infectious Diseases, Frederick, Maryland 21702-5011, USA.

Infect Immun (UNITED STATES) Jul 1995, 63 (7) p2738-42, ISSN 0019-9567 Journal Code: GO7

Languages: ENGLISH

Document type: JOURNAL ARTICLE

A completely synthetic gene encoding fragment C, a approximately 50-kDa fragment, of botulinum neurotoxin serotype A was constructed from oligonucleotides. The gene was expressed in Escherichia coli, and full-sized product was produced as judged by Western blot (immunoblot) analysis. Crude extracts of E. coli expressing the gene were used to ***vaccinate*** mice and evaluate their survival against challenge with active toxin. Mice given three subcutaneous ***vaccinations*** were protected against an intraperitoneal administration of 10(6) 50% lethal doses (ID50) of serotype A toxin. The same mice survived when challenged with 3 LD50 of botulinum toxin serotype E but died when challenged with 10 LD50 of serotype E or 3 LD50 of serotype B. Purified fragment C was compared with the botulinum toxoid ***vaccine*** in a ***vaccination*** and challenge study. Fragment C was as efficacious in protecting against challenge with active botulinum neurotoxin serotype A as the toxoid ***vaccine*** . This recombinant protein product has many properties that make it a good candidate for human use to protect against botulinum toxin.

2/7/5

DIALOG(R)File 155:MEDLINE(R)

09346485 95276485

Production of monoclonal antibodies specific to ***Clostridium*** ***botulinum*** type B neurotoxin.

Noah CW; Poteet SS; Ramos NC; Perez JC; Huang SY

U.S. Food and Drug Administration, Dallas, TX 75204, USA. J AOAC Int (UNITED STATES) Mar-Apr 1995, 78 (2) p381-5, ISSN 1060-3271 Journal Code: BKS

Languages: ENGLISH

Document type: JOURNAL ARTICLE

Four monoclonal antibodies were produced for use in a rapid method to detect ***Clostridium*** ***botulinum*** type B neurotoxin. Cells of mouse myeloma cell line SP2/0 were fused with splenocytes of ***immunized*** BALB/c mice. An immunoblot assay of semipurified commercial neurotoxins of C. botulinum types A, B, C, D, E, and F was used to show specificity. All the monoclonal antibodies reacted with type B neurotoxin but did not cross-react with the other types. The monoclonal antibodies, separately and combined, did not neutralize the toxin in mice, and all showed specificity to the whole neurotoxin molecule and the heavy-chain component by immunoblot. No evidence of specific binding to the hemagglutinin molecule was noted. When tested against concentrated cultured supernatants of C. botulinum types A, B, E, and F, the 4 monoclonal antibodies reacted only against type B strains. They will be incorporated into a rapid assay with other specific monoclonal antibodies to detect C. botulinum neurotoxins from pure cultures or suspect foods.

2/7/15

DIALOG(R)File 155:MEDLINE(R)

06508072 88153072

Establishment of a monoclonal antibody recognizing an antigenic site common to ***Clostridium*** ***botulinum*** type B, C1, D, and E toxins and tetanus toxin.

Tsuzuki K; Yokosawa N; Syuto B; Ohishi I; Fujii N; Kimura K; Oguma K Department of Microbiology, Sapporo Medical College, Japan. Infect Immun (UNITED STATES) Apr 1988, 56 (4) p898-902, ISSN 0019-9567 Journal Code: GO7

Languages: ENGLISH
Document type: JOURNAL ARTICLE
The partial amino acid sequence of the light-chain (Lc) component of ***Clostridium*** ***botulinum*** type C1 toxin was determined. The sequence was quite similar to those of the other types of botulinum and tetanus toxins. Nine monoclonal antibodies against botulinum type E toxin were established by ***immunizing*** BALB/c mice with type E toxoid or its Lc component. Six antibodies reacted with the heavy-chain component and three reacted with the Lc component of the toxin. One of the latter three antibodies reacted with botulinum type B, C1, and D toxins and tetanus toxin, as well as botulinum type E toxin. This antibody recognized the Lc components of these toxins, indicating that there exists one common antigenic determinant on the Lc regions of these toxins.

2/7/28
DIALOG(R)File 155:MEDLINE(R)

04822723 83055723
Four different monoclonal antibodies against type C1 toxin of ***Clostridium*** ***botulinum***.
Oguma K; Agui T; Syuto B; Kimura K; Iida H; Kubo S
Infect Immun (UNITED STATES) Oct 1982, 38 (1) p14-20, ISSN 0019-9567 Journal Code: GO7
Languages: ENGLISH
Document type: JOURNAL ARTICLE
Monoclonal antibodies against type C1 toxin produced by ***Clostridium*** ***botulinum*** type C strain Stockholm (C-ST) were prepared by fusion of BALB/c myeloma cells P3X63-Ag8, with spleen cells from the mice ***immunized*** by C-ST toxoid. About 5% of single-cell colonies in wells were found to produce antibodies against the toxin as determined by an enzyme-linked immunosorbent assay (ELISA). Four different hybridoma cell lines, no. 9, 12, 14, and 17, were established, cloned by limiting dilution, and intraperitoneally injected into mice to obtain the ascites fluids containing high-titered antibodies. The reactions of these antibodies to type C1 and D toxins of strains C-ST, D-1873, and D-South African (D-SA) were observed by both neutralization and ELISA tests. Three monoclonal antibodies, no. 9, 14, and 17, reacted with C-ST toxin, but only no. 17 highly neutralized the toxin. These antibodies did not react with type D toxins. On the contrary, no. 12 reacted with toxins of both C-ST and D-SA (but not of D-1873) and commonly neutralized these two toxins. This indicates that there is a common antigenic part between C-ST and D-SA toxin molecules which participates in the toxin-neutralizing reaction. The neutralization profiles of C-ST toxin by no. 12 and 17 antibodies were different in a time-to-death test of mice. The mechanisms of neutralization by no. 12 and 17 may be different.

2/7/29
DIALOG(R)File 155:MEDLINE(R)

04713370 82256370
The ***immunization*** of broiler chickens against type C botulism. Dohms JE; Allen PH; Cloud SS
Avian Dis (UNITED STATES) Apr-Jun 1982, 26 (2) p340-5, ISSN 0005-2086 Journal Code: 9IY
Languages: ENGLISH
Document type: JOURNAL ARTICLE
Broiler chickens were inoculated with different amounts of a ***Clostridium*** ***botulinum*** type C toxoid at 1 or 14 or both 1 and 14 days of age. Immunity was assessed following challenge with type C botulism toxin at 3, 6, and 8 weeks of age. Protection induced by toxoid injection was affected more by time and number of inoculations than by the amount of toxoid administered. Single toxoid injections at one day of age furnished poor protection, whereas groups injected at 14 days of age were well protected at 6 and 8 weeks of age but not at 3 weeks of age. Variable results were observed in groups inoculated at both 1 and 14 days of age: immunity was evident in some groups following 3-, 6-, and 8-week toxin challenges.

2/7/40
DIALOG(R)File 155:MEDLINE(R)

03167637 77069637
Antitoxin responses to ***Clostridium*** ***botulinum*** ***vaccines*** types C and D in guinea pigs.
Mathews AG
Dev Biol Stand (SWITZERLAND) 1976, 32 p193-201, Journal Code: E7V Languages: ENGLISH
Document type: JOURNAL ARTICLE
In guinea pigs, the type C and/or type D antitoxin responses to a single dose of a bivalent or monovalent Cl. botulinum ***vaccine*** increase markedly between the fourth and ninth week after injection and still increase markedly by the ninth week. For type C, a similar pattern has been found in cattle. Antigens of types C and D mutually interfere with the antitoxin responses in guinea pigs. Graded doses of ***vaccine*** arouse graded antitoxin responses in guinea pigs. Stability trials of ***vaccines*** have emphasized the unsatisfactory nature of an absolute-response type of assay, rather than revealing any loss of potency during storage. Attention is drawn to the need for a graded-response type of assay in which ***vaccines*** under test are compared with a reference ***vaccine***.

2/7/44
DIALOG(R)File 155:MEDLINE(R)

02797049 75204049
Purification and properties of ***Clostridium*** ***botulinum*** type F toxin.
Yang KH; Sugiyama H
Appl Microbiol (UNITED STATES) May 1975, 29 (5) p598-603, ISSN 0003-6919 Journal Code: 6K0
Languages: ENGLISH
Document type: JOURNAL ARTICLE
Clostridium ***botulinum*** type F toxin of proteolytic Langeland strain was purified. Toxin in whole cultures was precipitated with (NH4)2SO4. Extract of the precipitate was successively chromatographed on diethylaminoethyl-cellulose at pH 6,0, O-(carboxymethyl) cellulose at pH 4.9, and finally diethylaminoethyl-cellulose at pH 8.1. The procedure recovered 14 percent of the toxin assayed in the starting culture. The toxin was homogeneous by sodium dodecyl sulfate-polyacrylamide gel electrophoresis, double gel diffusion serology, and isoelectric focusing. Purified toxin had a molecular weight of 150,000 by gel filtration and 155,000 by sodium dodecyl sulfate-polyacrylamide gel electrophoresis. Specific toxicity was 9.6 X 10-6 mean lethal doses per absorbancy (278 nm) unit. Sub-units of 105,000 and 56,000 molecular weight are found when purified toxin is treated with a disulfide reducing agent and electrophoresed on sodium dodecyl sulfate-polyacrylamide gels. Reciprocal cross neutralizations were demonstrated when purified type F and E toxins were reacted with antitoxins which were obtained with ***immunizing*** toxoids prepared with purified toxins.

2/7/47
DIALOG(R)File 155:MEDLINE(R)

02545140 74263140
Immunological heterogeneity of ***Clostridium*** ***botulinum*** type B toxins.
Shimizu T; Kondo H; Sakaguchi G
Jpn J Med Sci Biol (JAPAN) Apr 1974, 27 (2) p99-100, ISSN 0021-5112 Journal Code: KLZ
Languages: ENGLISH

Document type: JOURNAL ARTICLE

2/7/48
DIALOG(R)File 155:MEDLINE(R)
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02542207 74260207
Toxic proteins produced by ***Clostridium*** ***botulinum***. Schantz EJ; Sugiyama H
J Agric Food Chem (UNITED STATES) Jan-Feb 1974, 22 (1) p26-30, ISSN 0021-8561 Journal Code: H3N
Languages: ENGLISH
Document type: JOURNAL ARTICLE; REVIEW
(55 Refs.)

2/7/53
DIALOG(R)File 155:MEDLINE(R)
(c) format only 1996 Knight-Ridder Info. All rts. reserv.

01167037 70012037
Antigenicity of ***Clostridium*** ***botulinum*** type-E formol toxoid. Kondo H; Kondo S; Murata R; Sakaguchi G
Jpn J Med Sci Biol (JAPAN) Apr 1969, 22 (2) p75-85, ISSN 0021-5112 Journal Code: KLZ
Languages: ENGLISH
Document type: CLINICAL TRIAL; JOURNAL ARTICLE
?s s1 and (toxin)

1627 S1
30610 TOXIN
S3 682 S1 AND (TOXIN)
?s s3 and epitope?

682 S3
48619 EPITOPE?
S4 14 S3 AND EPITOPE?
?t s4/6/1-14

4/7/1
DIALOG(R)File 155:MEDLINE(R)
(c) format only 1996 Knight-Ridder Info. All rts. reserv.

08155000 92293000
Purification and characterization of heterologous component IIs of botulinum C2 ***toxin***.
Ohishi I; Hama Y
University of Osaka Prefecture, College of Agriculture, Japan. Microbiol Immunol (JAPAN) 1992, 36 (3) p221-9, ISSN 0385-5600 Journal Code: MX7
Languages: ENGLISH
Document type: JOURNAL ARTICLE
Botulinum C2 ***toxin*** (C2T) elaborated by certain strains of ***Clostridium*** ***botulinum*** types C and D is composed of separate and dissimilar two proteins, components I and II. Previous studies

have shown that these two components of C2T produced by type C and D strains were immunologically heterologous and that C2T-producers were classified into three groups depending on the difference in molecular characteristics of the components I and II. In the present study, the heterologous component IIs of C2T were purified from three representative strains of the groups and the molecular characteristics of the components were compared. Immunological analyses by agar gel double immunodiffusion test showed that the component IIs purified from the three strains have the specific ***epitope*** (s) in addition to the common one(s). The biological activity of C2Ts reconstituted with component I purified from a fixed strain and component II each from the three strains differed depending on the source of the component II. These results indicate that the component II of C2T produced by C. botulinum types C and D differs in molecular structure, which reflects on the difference in the biological activity of the ***toxin*** . The present study suggests that the pathophysiological activity of C2T, which possibly causes a necrotic enteritis, is dependent on the C2T-producing bacteria infected.

4/7/2
DIALOG(R)File 155:MEDLINE(R)

08009050 92147050
[The structure and function of botulinum type C neurotoxin] Kimura K
Department of Microbiology, Sapporo Medical College, Japan. Hokkaido Igaku Zasshi (JAPAN) Nov 1991, 66 (6) p841-8, ISSN 0367-6102 Journal Code: GA9
Languages: JAPANESE Summary Languages: ENGLISH
Document type: JOURNAL ARTICLE English Abstract
The structure gene for botulinum type C neurotoxin was cloned from the toxigenic bacteriophage obtained from ***Clostridium*** ***botulinum*** type C, and the whole nucleotide sequence was determined. The nucleotide sequence contained a single open reading frame coding for 1,291 amino acids corresponding to a polypeptide with a molecular weight of 149,000. The signal peptide was not found after the first methionine residue. Upstream of the ATG codon, sequences predicted as a Shine-Dalgarno and a promoter were found. When the deduced amino acid sequence of type C ***toxin*** was compared with those of type A and D botulinum toxins and tetanus ***toxin***, type C ***toxin*** shared about 52% identity with type D ***toxin*** , but shared only about 33% identity with type A and tetanus toxins. The structure and function of type C ***toxin*** were estimated from the results of ***epitope*** map with monoclonal antibodies and DNA thermal stability map.

4/7/3
DIALOG(R)File 155:MEDLINE(R)

06508072 88153072
Establishment of a monoclonal antibody recognizing an antigenic site common to ***Clostridium*** ***botulinum*** type B, C1, D, and E toxins and tetanus ***toxin***.
Tsuzuki K; Yokosawa N; Syuto B; Ohishi I; Fujii N; Kimura K; Oguma K Department of Microbiology, Sapporo Medical College, Japan. Infect Immun (UNITED STATES) Apr 1988, 56 (4) p898-902, ISSN 0019-9567 Journal Code: GO7
Languages: ENGLISH
Document type: JOURNAL ARTICLE
The partial amino acid sequence of the light-chain (Lc) component of ***Clostridium*** ***botulinum*** type C1 ***toxin*** was determined. The sequence was quite similar to those of the other types of botulinum and tetanus toxins. Nine monoclonal antibodies against botulinum type E ***toxin*** were established by immunizing BALB/c mice with type E toxoid or its Lc component. Six antibodies reacted with the heavy-chain component and three reacted with the Lc component of the ***toxin***. One of the latter three antibodies reacted with botulinum type B, C1, and D toxins and tetanus ***toxin***, as well as

botulinum type E ***toxin***. This antibody recognized the Lc components of these toxins, indicating that there exists one common antigenic determinant on the Lc regions of these toxins.

4/7/4
DIALOG(R)File 155:MEDLINE(R)

06111420 87085420
Activation of ***Clostridium*** ***botulinum*** type E ***toxin*** purified by two different procedures.
Yokosawa N; Tsuzuki K; Syuto B; Oguma K
J Gen Microbiol (ENGLAND) Jul 1986, 132 (Pt 7) p1981-8, ISSN 0022-1287 Journal Code: I87
Languages: ENGLISH
Document type: JOURNAL ARTICLE
Clostridium ***botulinum*** type E ***toxin*** was purified from culture supernates and from cell extracts by two methods. The specific activity [2 X 10(4) mouse LD50 (mg protein)-1] of the ***toxin*** purified from cell extract under slightly acidic conditions was lower than that [3 X 10(5) LD50 (mg protein)-1] of the ***toxin*** purified from culture supernate under slightly alkaline conditions. Both ***toxin*** preparations were activated by trypsin treatment, but to different extents, the degree of activation of the ***toxin*** from cell extract being about 30-fold higher than that of the ***toxin*** from culture supernate. The two ***toxin*** preparations had the same electrophoretic mobility on SDS-polyacrylamide gels and antigenic specificity as revealed by agar gel double-immunodiffusion tests. The antigenic specificity of the two ***toxin*** preparations was unaltered by trypsin treatment. In SDS-polyacrylamide gel electrophoresis, a single band of Mr 144,000 was demonstrated before trypsin treatment and two bands of Mr 100,000 and 55,000 appeared after trypsin treatment. The two ***toxin*** preparations were labelled with 125I and chymotryptic peptide maps were obtained before and after trypsin treatment. The two ***toxin*** preparations without trypsin treatment demonstrated many differences in their peptide maps, but the preparations after trypsin activation had similar peptide maps. These results indicate that the ***toxin*** obtained from culture fluid was a partially activated form, and that its molecular conformation was different from that of the ***toxin*** from cell extract. Differences in specific activity and activation ratio by trypsin treatment may be due to differences in the conformation of the ***toxin*** molecules.

4/7/5
DIALOG(R)File 155:MEDLINE(R)

06101234 87075234
Determination of soluble antigens of ***Clostridium*** ***botulinum*** A by chemiluminescent--immunosorbent assay (CLISA).
Ligieza J; Michalik M; Reiss J; Grzybowski J
Arch Immunol Ther Exp (Warsz) (POLAND) 1986, 34 (2) p189-95, ISSN 0004-069X Journal Code: 79O
Languages: ENGLISH
Document type: JOURNAL ARTICLE
The chemiluminescent--immunosorbent assay (CLISA) was adopted for Cl. botulinum A soluble toxic antigens determination. Luminol (ABEI) labelled botulinum antitoxin globulins showed a strongly positive specific immunochemiluminescent reactions with the native botulinum ***toxin*** preparations coupled (adsorbed) on polystyrene balls. The sensitivity of the reaction reached 20 DLM/ml (5,000 light impulses per 40 sec) in comparison with 2 X 10(6) DLM (57,000 impulses), control preparations (1,500 impulses) and the background (150-300 impulses). The results give a perspective further investigations with the CLISA for rapid indication of Cl. botulinum toxic antigens.

4/7/6
DIALOG(R)File 155:MEDLINE(R)

05921691 86222691

The use of monoclonal antibodies to analyze the structure of ***Clostridium*** ***botulinum*** type E derivative ***toxin***. Kozaki S; Kamata Y; Nagai T; Ogasawara J; Sakaguchi G

Infect Immun (UNITED STATES) Jun 1986, 52 (3) p786-91, ISSN 0019-9567 Journal Code: GO7
Languages: ENGLISH
Document type: JOURNAL ARTICLE

Six monoclonal antibodies against ***Clostridium*** ***botulinum*** type E derivative ***toxin*** were prepared. Three of the five binding to the heavy chain neutralized the derivative ***toxin***; the other one binding to the light chain did not. Immunoblotting analysis with the monoclonal antibodies showed that the fragment obtained by tryptic digestion consisted of the light chain and part of the heavy chain (H-1 fragment) linked together by a disulfide bond(s) and that the antigenic determinants common between type E and F derivative toxins were located on both the heavy and light chains. The fragment induced by chymotrypsin treatment, like the tryptic fragment, bound to four monoclonal antibodies. The mild tryptic treatment and reduction resulted in separation of the chymotryptic fragment into two smaller fragments corresponding to the light chain and H-1 fragment. These results indicate that H-1 fragment contains the amino-terminal portion of the heavy chain. The monoclonal antibody neutralizing the ***toxin*** and probably recognizing the ***epitope*** on the carboxyl-terminal portion (H-2 fragment) of the heavy chain effectively competed for binding of 125I-labeled derivative ***toxin*** to synaptosomes. Of the two monoclonal antibodies neutralizing the ***toxin*** and recognizing the ***epitopes*** on H-1 fragment, one partially inhibited binding, but the other did not. This suggests that the binding of 125I-labeled derivative ***toxin*** depends mainly on the carboxyl-terminal region of the heavy chain and that interference with binding is not the only means of ***toxin*** neutralization.

4/7/7
DIALOG(R)File 155:MEDLINE(R)

05591516 85207516

The structural relation between the antigenic determinants to monoclonal antibodies and binding sites to rat brain synaptosomes and GT1b ganglioside in ***Clostridium*** ***botulinum*** type C neurotoxin.

Agui T; Syuto B; Oguma K; Iida H; Kubo S

J Biochem (Tokyo) (JAPAN) Jan 1985, 97 (1) p213-8, ISSN 0021-924X Journal Code: HIF
Languages: ENGLISH
Document type: JOURNAL ARTICLE

The inhibition of the binding of 125I-labeled ***Clostridium*** ***botulinum*** type C neurotoxin to synaptosomes by unlabeled ***toxin*** indicated that there were two kinds of receptors on the synaptosomal membrane. The dissociation constants (Kd) were calculated as 79 pM and 35 nM from the concentration of unlabeled ***toxin*** that induced half-displacement of bound 125I-***toxin*** . These values agree satisfactorily with the values obtained from direct binding experiments (Agui, T, Syuto, B., Oguma, K., Iida, H., & Kubo, S. (1983) J. Biochem. 94, 521-527). The inhibition of the binding of 125I-***toxin*** to synaptosomes and N-acetylneuraminyl(alpha 2-3)galactosyl(beta 1-3)N-acetylgalactosaminyl (beta 1-4) [N-acetylneuraminyl(alpha 2-8) N-acetylneuraminyl(alpha 2-3)]galactosyl(beta 1-4)glucosyl(beta 1-1)ceramide (GT1b) by unlabeled heavy chain indicated that heavy chain facilitates the binding of ***toxin*** to synaptosomes and GT1b. The synaptosomal and heavy chain complex Kd values were estimated as 12 nM and 24 microM. Monoclonal antibodies C-9 and CA-12 recognized the binding sites to GT1b and synaptosomes, respectively. Antigenic determinants against the two antibodies are presumably partially overlapping, and the overlapping area seems to be essential to the reaction between ***toxin*** and C-9 antibody.

4/7/8
DIALOG(R)File 155:MEDLINE(R)

05331701 84255701
Comparison of antigenicity of toxins produced by ***Clostridium*** ***botulinum*** type C and D strains.
Ochanda JO; Syuto B; Oguma K; Iida H; Kubo S
Appl Environ Microbiol (UNITED STATES) Jun 1984, 47 (6) p1319-22, ISSN 0099-2240 Journal Code: 6K6
Languages: ENGLISH
Document type: JOURNAL ARTICLE
C1 neurotoxin of ***Clostridium*** ***botulinum*** strains C-Stockholm (C-ST), C beta-Yoichi, C-468, CD6F, and C-CB19 and type D ***toxin*** of strains D-1873 and D-CB16 were purified by gel filtration, ion exchange, and affinity chromatographies. The purified toxins had di-chain structure made of heavy and light chains. The toxins of C beta-Yoichi, C-468, CD6F, and C-CB19 reacted with anti-C-ST heavy chain and anti-C-ST light chain in immunodiffusion tests and enzyme-linked immunosorbent assay, whereas D-CB16 ***toxin*** reacted with anti-D-1873 heavy chain and anti-D-1873 light chain. However, C-6813 ***toxin*** reacted with anti-D-1873 heavy chain and anti-C-ST light chain but not with anti-C-ST heavy chain or anti-D-1873 light chain immunoglobulin G. These results indicate common antigens in the heavy chains of C-6813 and D-1873 toxins and in the light chains of C-6813 and C-ST toxins. Further, they provide evidence for heterogeneity within type C1 ***toxin*** subunits.

4/7/9
DIALOG(R)File 155:MEDLINE(R)

05186522 84110522
Analysis of antigenicity of ***Clostridium*** ***botulinum*** type C1 and D toxins by polyclonal and monoclonal antibodies.
Oguma K; Murayama S; Syuto B; Iida H; Kubo S
Infect Immun (UNITED STATES) Feb 1984, 43 (2) p584-8, ISSN 0019-9567 Journal Code: GO7
Languages: ENGLISH
Document type: JOURNAL ARTICLE
Clostridium ***botulinum*** type C1 ***toxin*** was purified from C-Stockholm (C-ST), and D ***toxin*** was purified from D-1873 and D-South African. Polyclonal antibodies against these toxins were prepared in rabbits. Twenty-eight monoclonal antibodies to these toxins were also prepared with BALB/c myeloma cells. The antibodies were analyzed by both enzyme-linked immunosorbent assay (ELISA) and a ***toxin*** neutralization test. ELISA was performed with the three purified toxins and heavy-chain (Hc) and light-chain (Lc) components derived from C-ST and D-1873 toxins. A neutralization test was carried out with 11 ***toxin*** preparations (7 from type C and 4 from type D cultures). ELISA results indicated that there exists at least one common antigenic determinant on each of the Hc and Lc components of the three purified toxins. The results of the neutralization test also indicated that type C1 and D ***toxin*** preparations contain several common antigenic sites in their molecules. Some are common to toxins from several specific cultures, whereas others are common to toxins from a large number of cultures. It was speculated that toxins from two type C strains are composed of Hc and Lc components which are somewhat similar to those of D-1873 and C-ST toxins, respectively.

4/7/10
DIALOG(R)File 155:MEDLINE(R)

04822723 83055723

Four different monoclonal antibodies against type C1 ***toxin*** of ***Clostridium*** ***botulinum***.

Oguma K; Agui T; Syuto B; Kimura K; Iida H; Kubo S

Infect Immun (UNITED STATES) Oct 1982, 38 (1) p14-20, ISSN 0019-9567 Journal Code: GO7

Languages: ENGLISH

Document type: JOURNAL ARTICLE

Monoclonal antibodies against type C1 ***toxin*** produced by ***Clostridium*** ***botulinum*** type C strain Stockholm (C-ST) were prepared by fusion of BALB/c myeloma cells P3X63-Ag8, with spleen cells from the mice immunized by C-ST toxoid. About 5% of single-cell colonies in wells were found to produce antibodies against the ***toxin*** as determined by an enzyme-linked immunosorbent assay (ELISA). Four different hybridoma cell lines, no. 9, 12, 14, and 17, were established, cloned by limiting dilution, and intraperitoneally injected into mice to obtain the ascites fluids containing high-titered antibodies. The reactions of these antibodies to type C1 and D toxins of strains C-ST, D-1873, and D-South African (D-SA) were observed by both neutralization and ELISA tests. Three monoclonal antibodies, no. 9, 14, and 17, reacted with C-ST ***toxin***, but only no. 17 highly neutralized the ***toxin***. These antibodies did not react with type D toxins. On the contrary, no. 12 reacted with toxins of both C-ST and D-SA (but not of D-1873) and commonly neutralized these two toxins. This indicates that there is a common antigenic part between C-ST and D-SA ***toxin*** molecules which participates in the ***toxin*** -neutralizing reaction. The neutralization profiles of C-ST ***toxin*** by no. 12 and 17 antibodies were different in a time-to-death test of mice. The mechanisms of neutralization by no. 12 and 17 may be different.

4/7/11

DIALOG(R)File 155:MEDLINE(R)

03610971 78244971

Structure of ***Clostridium*** ***botulinum*** type B derivative ***toxin***: inhibition with a fragment of ***toxin*** from binding to synaptosomal fraction [proceedings]

Kozaki S; Miyazaki S; Sakaguchi G

Jpn J Med Sci Biol (JAPAN) Apr 1978, 31 (2) p163-6, ISSN 0021-5112 Journal Code: KLZ

Languages: ENGLISH

Document type: JOURNAL ARTICLE

4/7/12

DIALOG(R)File 155:MEDLINE(R)

03445262 78079262

Cultural and physiological characteristics of ***Clostridium*** ***botulinum*** type G and the susceptibility of certain animals to its ***toxin***.

Ciccarelli AS; Whaley DN; McCroskey LM; Gimenez DF; Dowell VR Jr; Hatheway CL

Appl Environ Microbiol (UNITED STATES) Dec 1977, 34 (6) p843-8, ISSN 0099-2240 Journal Code: 6K6

Languages: ENGLISH

Document type: JOURNAL ARTICLE

Strain 89 of ***Clostridium*** ***botulinum*** type G, isolated by Gimenez and Ciccarelli in 1969, was characterized culturally, biochemically, and toxigenically. It was motile, hemolytic asaccharolytic, weakly proteolytic, lipase and lecithinase negative, and it produced acetic, isobutyric, butyric, and isovaleric acids in peptone-yeast extract-glucose broth. No spores were seen in smears from solid or liquid media. Very low levels of ***toxin*** were produced in regular broth cultures, but dialysis cultures yielded 30,000 mouse 50% mean lethal doses (LD50 per kg, orally and subcutaneously,

respectively; and for guinea pigs, 10,000 to 20,000 and 100 mouse LD50 per kig, intragastrically and intraperitoneally, respectively.

4/7/13
DIALOG(R)File 155:MEDLINE(R)

03118491 77020491
Observations on bacteriophages of ***Clostridium*** ***botulinum*** type C isolates from different sources and the role of certain phages in toxigenicity.
Hariharan H; Mitchell WR
Appl Environ Microbiol (UNITED STATES) Jul 1976, 32 (1) p145-58, Journal Code: 6K6
Languages: ENGLISH
Document type: JOURNAL ARTICLE
Twenty strains of ***Clostridium*** ***botulinum*** type C, including 12 isolates from avian sources with varying toxigenic properties, were examined by electron microscope for the presence of bacteriophages. All toxigenic strains were infected with one or two types of phages. Three types of phages designated large, small, and intermediate were observed. Most of the strains carried the large and small phage, with the large phage being present in much greater numbers. Since there is evidence that highly toxigenic strains of C. botulinum type C are responsible for large outbreaks of botulism in wild birds, the phenomenon of toxigenic variation among the type C strains was investigated. Experiments were carried out employing a broth medium on a phagefree nontoxigenic strain for elucidating the role of bacteriophages in toxigenicity. All phage suspensions contained large phages, with the exception of one that caused conversion. The exception was a preparation containing an intermediate type of phage. Phages from different strains produced cultures of varying toxigenic characteristics. By employing a tube-lytic test and an agar-overlay-phage assay technique, it was determined that whenever the phage-bacterium relationship resulted in an initial high degree of lysis, the potency of ***toxin*** in the culture was weak. It appeared that in highly toxigenic strains, the phage-bacterium relationship is characterized by a stable lysogenic type of association. It was also found that in a highly toxigenic converted culture the percentage of toxigenic cells was 100, whereas in hypotoxigenic culture the percentage was only 20.

4/7/14
DIALOG(R)File 155:MEDLINE(R)

02912991 76093991
Molecular construction of ***Clostridium*** ***botulinum*** type A toxins.
Sugii S; Sakaguchi G
Infect Immun (UNITED STATES) Dec 1975, 12 (6) p1262-70, ISSN 0019-9567 Journal Code: GO7
Languages: ENGLISH
Document type: JOURNAL ARTICLE
Two ***Clostridium*** ***botulinum*** type A toxic fractions, named large (L) and medium (M) toxins, were eluted from Sephadex G-200. Sucrose density gradient centrifugation resolved L ***toxin*** (2.5 X 10(8) to 3.0 X 10(8) mean lethal doses per mg of N) into two fractions, 19S and 16S. The same procedure performed at pH 8resolved it into three fractions; the heavier two were both nontoxic and hemagglutinin positive, and the lightest on (7S) was toxic. M ***toxin*** (12S) (4.5 X 10(8) to 5.0 X 10(8) mean lethal doses per mg of N) was homogeneous in electrophoresis and centrifugation at pH 6. The latter procedure performed at pH 8 dmonstrated that it dissociated into uniform 7S components. The nontoxic component of M ***toxin*** was free from hemagglutinin. M ***toxin*** alone was demonstrated in culture by sucrose density gradient centrifugation at pH 6. Dialysis of the culture supernatant resulted in partial formation of 16S ***toxin***. Centrifugation of the crystalline ***toxin*** in 1 MNaCl

demonstrated 16S ***toxin*** only. The toxic components of L, M, and crystalline toxins were antigenically identical. The nontoxic components of the crystalline and L toxins, consisting of two distinct antigens, were antigenically identical; that of M ***toxin*** was identical with one of these two antigens.
?s s1 and (neurotoxin)

```
        1627  S1
        3673  NEUROTOXIN
    S5   153  S1 AND (NEUROTOXIN)
```
?s s5 and epitope?

```
         153  S5
       48619  EPITOPE?
    S6     6  S5 AND EPITOPE?
```
?t s6/7/1-6

6/7/1
DIALOG(R)File 155:MEDLINE(R)
(c) format only 1996 Knight-Ridder Info. All rts. reserv.

08009050 92147050
The structure and function of botulinum type C ***neurotoxin***] Kimura K
Department of Microbiology, Sapporo Medical College, Japan. Hokkaido Igaku Zasshi (JAPAN) Nov 1991, 66 (6) p841-8, ISSN 0367-6102 Journal Code: GA9
Languages: JAPANESE Summary Languages: ENGLISH
Document type: JOURNAL ARTICLE English Abstract
The structure gene for botulinum type C ***neurotoxin*** was cloned from the toxigenic bacteriophage obtained from ***Clostridium*** ***botulinum*** type C, and the whole nucleotide sequence was determined. The nucleotide sequence contained a single open reading frame coding for 1,291 amino acids corresponding to a polypeptide with a molecular weight of 149,000. The signal peptide was not found after the first methionine residue. Upstream of the ATG codon, sequences predicted as a Shine-Dalgarno and a promoter were found. When the deduced amino acid sequence of type C toxin was compared with those of type A and D botulinum toxins and tetanus toxin, type C toxin shared about 52% identity with type D toxin, but shared only about 33% identity with type A and tetanus toxins. The structure and function of type C toxin were estimated from the results of ***epitope*** map with monoclonal antibodies and DNA thermal stability map.

6/7/2
DIALOG(R)File 155:MEDLINE(R)
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07682995 91201995
Molecular structure and function of ***Clostridium*** ***botulinum*** ***neurotoxin***]
Kozaki S
Department of Veterinary Science, University of Osaka Prefecture. Seikagaku (JAPAN) Dec 1990, 62 (12) p1496-500, ISSN 0037-1017 Journal Code: ILZ
Languages: JAPANESE
Document type: JOURNAL ARTICLE

6/7/3
DIALOG(R)File 155:MEDLINE(R)
(c) format only 1996 Knight-Ridder Info. All rts. reserv.

07036716 89338716
Immuno-crossreactivity between botulinum ***neurotoxin*** type C1 or D and exoenzyme C3.
Toratani S; Yokosawa N; Yokosawa H; Ishii S; Oguma K
Department of Biochemistry, Faculty of Pharmaceutical Sciences, Hokkaido University, Japan.
FEBS Lett (NETHERLANDS) Jul 31 1989, 252 (1-2) p83-7, ISSN 0014-5793 Journal Code: EUH
Languages: ENGLISH
Document type: JOURNAL ARTICLE
Botulinum ***neurotoxin*** type D and exoenzyme C3 have been separately purified from ***Clostridium*** ***botulinum*** strain D-1873 to apparent homogeneity. Both ADP-ribosylated a rat liver cytosolic protein of 24 kDa. The N-terminal amino acid sequence of C3 was determined and showed a low degree of homology with those of the light and heavy chains of neurotoxins of various types which have been reported previously. However, a polyclonal antibody raised against C3 cross-reacted with the light chains, but not with the heavy chains, of type C1 and D neurotoxins. Furthermore, a monoclonal antibody recognizing the light chains of type C1 and D neurotoxins interacted with C3. These results suggest that the light chain of type C1 or D ***neurotoxin*** and exoenzyme C3 share at least one ***epitope*** in common with each other.

6/7/4
DIALOG(R)File 155:MEDLINE(R)

06412597 88057597
Antigenic structure of ***Clostridium*** ***botulinum*** type B ***neurotoxin*** and its interaction with gangliosides, cerebroside, and free fatty acids.
Kozaki S; Ogasawara J; Shimote Y; Kamata Y; Sakaguchi G
Department of Veterinary Science, College of Agriculture, University of Osaka Prefecture, Japan.
Infect Immun (UNITED STATES) Dec 1987, 55 (12) p3051-6, ISSN 0019-9567 Journal Code: GO7
Languages: ENGLISH
Document type: JOURNAL ARTICLE
A fragment distinct from the heavy and light chains was obtained by treatment of ***Clostridium*** ***botulinum*** type B ***neurotoxin*** with chymotrypsin. Enzyme-linked immunosorbent assay and immunoblotting analysis with monoclonal antibodies showed that the fragment consisted of the light chain and part of the heavy chain (H-1 fragment) linked together by a disulfide bond. Monoclonal antibodies reacting to the heavy chain but not to the fragment were thought to recognize the ***epitopes*** on the remaining portion (H-2 fragment) of the heavy chain, being easily digested by chymotrypsin. Thus, the antigenic structure of type B ***neurotoxin*** resembles those of type A and E neurotoxins. The chymotrypsin-induced fragment bound to cerebroside and free fatty acids but not to gangliosides. The manner of binding of type B ***neurotoxin*** to gangliosides and free fatty acids was different from those of type A and E neurotoxins. Such differences in the reactivities to lipids may be related to the finding that each ***neurotoxin*** binds to a type-specific site on the neural membrane.

6/7/5
DIALOG(R)File 155:MEDLINE(R)

05591516 85207516
The structural relation between the antigenic determinants to monoclonal antibodies and binding sites to rat brain synaptosomes and GT1b ganglioside in ***Clostridium*** ***botulinum*** type C ***neurotoxin***.
Agui T; Syuto B; Oguma K; Iida H; Kubo S
J Biochem (Tokyo) (JAPAN) Jan 1985, 97 (1) p213-8, ISSN 0021-924X Journal Code: HIF
Languages: ENGLISH

Document type: JOURNAL ARTICLE
The inhibition of the binding of 125I-labeled ***Clostridium*** ***botulinum*** type C ***neurotoxin*** to synaptosomes by unlabeled toxin indicated that there were two kinds of receptors on the synaptosomal membrane. The dissociation constants (Kd) were calculated as 79 pM and 35 nM from the concentration of unlabeled toxin that induced half-displacement of bound 125I-toxin. These values agree satisfactorily with the values obtained from direct binding experiments (Agui, T, Syuto, B., Oguma, K., Iida, H., & Kubo, S. (1983) J. Biochem. 94, 521-527). The inhibition of the binding of 125I-toxin to synaptosomes and N-acetylneuraminyl(alpha 2-3)galactosyl(beta 1-3)N-acetylgalactosaminyl(beta 1-4) [N-acetylneuraminy l(alpha 2-8) N-acetylneuraminyl(alpha 2-3)]galactosyl(beta 1-4)glucosyl(bet a 1-1)ceramide (GT1b) by unlabeled heavy chain indicated that heavy chain facilitates the binding of toxin to synaptosomes and GT1b. The synaptosomal and heavy chain complex Kd values were estimated as 12 nM and 24 microM. Monoclonal antibodies C-9 and CA-12 recognized the binding sites to GT1b and synaptosomes, respectively. Antigenic determinants against the two antibodies are presumably partially overlapping, and the overlapping area seems to be essential to the reaction between toxin and C-9 antibody.

6/7/6
DIALOG(R)File 155:MEDLINE(R)

05331701 84255701
Comparison of antigenicity of toxins produced by ***Clostridium*** ***botulinum*** type C and D strains.
Ochanda JO; Syuto B; Oguma K; Iida H; Kubo S
Appl Environ Microbiol (UNITED STATES) Jun 1984, 47 (6) p1319-22, ISSN 0099-2240 Journal Code: 6K6
Languages: ENGLISH
Document type: JOURNAL ARTICLE
C1 ***neurotoxin*** of ***Clostridium*** ***botulinum*** strains C-Stockholm (C-ST), C beta-Yoichi, C-468, CD6F, and C-CB19 and type D toxin of strains D-1873 and D-CB16 were purified by gel filtration, ion exchange, and affinity chromatographies. The purified toxins had di-chain structure made of heavy and light chains. The toxins of C beta-Yoichi, C-468, CD6F, and C-CB19 reacted with anti-C-ST heavy chain and anti-C-ST light chain in immunodiffusion tests and enzyme-linked immunosorbent assay, whereas D-CB16 toxin reacted with anti-D-1873 heavy chain and anti-D-1873 light chain. However, C-6813 toxin reacted with anti-D-1873 heavy chain and anti-C-ST light chain but not with anti-C-ST heavy chain or anti-D-1873 light chain immunoglobulin G. These results indicate common antigens in the heavy chains of C-6813 and D-1873 toxins and in the light chains of C-6813 and C-ST toxins. Further, they provide evidence for heterogeneity within type C1 toxin subunits.
?display sets

Set	Items	Description
S1	1627	CLOSTRIDIUM(W)BOTULINUM
S2	55	S1 AND (VACCIN? OR IMMUNIZ?)
S3	682	S1 AND (TOXIN)
S4	14	S3 AND EPITOPE?
S5	153	S1 AND (NEUROTOXIN)
S6	6	S5 AND EPITOPE?

?s s1 and (toxin or neurotoxin)

	1627	S1
	30610	TOXIN
	3673	NEUROTOXIN
S7	743	S1 AND (TOXIN OR NEUROTOXIN)

?s s7 and (type(w)A or serotype(w)A)

Processing
Processing
743 S7
357920 TYPE
4213997 A
15831 TYPE(W)A
8380 SEROTYPE
4213997 A
406 SEROTYPE(W)A
S8 180 S7 AND (TYPE(W)A OR SEROTYPE(W)A)
?t s8/6/1-180

?4?t s8/7/14,15,27,42,45,47,48,53,103,106,170,178

8/7/14
DIALOG(R)File 155:MEDLINE(R)

08965521 94280521
Covalent structure of botulinum ***neurotoxin*** ***type*** ***A***: location of sulfhydryl groups, and disulfide bridges and identification of C-termini of light and heavy chains.
Krieglstein KG; DasGupta BR; Henschen AH
Department of Molecular Biology and Biochemistry, University of California, Irvine 92717.
J Protein Chem (UNITED STATES) Jan 1994, 13 (1) p49-57, ISSN 0277-8033 Journal Code: AEJ
Contract/Grant No.: NS17742, NS, NINDS
Languages: ENGLISH
Document type: JOURNAL ARTICLE
Botulinum ***neurotoxin*** ***Type*** ***A*** is synthesized by ***Clostridium*** ***botulinum*** as a approximately 150 kD single chain polypeptide. The posttranslational processing of the 1296 amino acid residue long gene product involves removal of the initiating methionine, formation of disulfide bridges, and limited proteolysis (nicking) by the bacterial protease(s). The mature dichain ***neurotoxin*** is made of a approximately 50-kD light chain and a approximately 100-kD heavy chain connected by a disulfide bridge. DNA derived amino acid sequence predicted a total of 9 Cys residues (Binz et al., 1990, J. Biol. Chem. 265, 9153-9158; Thompson et al., 1990, Eur. J. Biochem. 189, 73-81). Treatment of the dichain ***neurotoxin*** , dissolved in 6 M guanidine. HCl, with 4-vinylpyridine converted 5 Cys residues into S-pyridylethyl cysteine residues; but alkylation after mercaptolysis converted all 9 Cys residues in the S-pyridylethylated form. After confirming the predicted number of Cys residues by amino acid analysis, the positions of the 5 Cys residues carrying sulfhydryl groups and the 4 involved in disulfide bridges were determined by comparing the elution patterns in reversed-phase HPLC of the cyanogen bromide mixtures of the exclusively alkylated and the mercaptolyzed-alkylated ***neurotoxin***. The chromatographically isolated components were identified by N-terminal amino acid sequence analysis. The HPLC patterns showed characteristic differences. The Cys residues predicted in positions 133, 164, 790, 966, and 1059 were found in the sulfhydryl form; Cys 429 and 453 were found disulfide-bridge connecting the light and heavy chains, and Cys 1234 and 1279 were found in an intrachain disulfide-bridge near the C-terminus in the heavy chain.(ABSTRACT TRUNCATED AT 250 WORDS)

8/7/15
DIALOG(R)File 155:MEDLINE(R)

08828603 94143603

Sequence of the gene coding for the ***neurotoxin*** of ***Clostridium*** ***botulinum*** ***type*** ***A*** associated with infant botulism: comparison with other clostridial neurotoxins.
Willems A; East AK; Lawson PA; Collins MD
Department of Microbiology, AFRC Institute of Food Research, Reading, UK. Res Microbiol (FRANCE) Sep 1993, 144 (7) p547-56, ISSN 0923-2508 Journal Code: R6F
Languages: ENGLISH
Document type: JOURNAL ARTICLE
The ***neurotoxin*** gene from a strain of ***Clostridium*** ***botulinum*** ***type*** ***A*** causing infant botulism was cloned as a series of overlapping polymerase chain reaction (PCR) fragments generated using primers designed to conserved regions of published botulinal ***toxin*** (BoNT) sequences. Translation of the nucleotide sequence derived from cloned PCR fragments demonstrated that the ***toxin*** gene encodes a protein of 1,296 amino acid residues. Comparative alignment of the derived infant BoNT/A sequence with those of other published neurotoxins revealed highest sequence relatedness with BoNT/A of classical food-borne botulism. The sequence identity between infant and classical BoNT/A was 94.9% for the light chain (corresponding to 23 amino acid changes) and 87.1% for the heavy chain (corresponding to 109 amino acid changes).

8/7/27
DIALOG(R)File 155:MEDLINE(R)

08038961 92176961
Clostridium ***botulinum*** toxins: a general review of involvement in disease, structure, mode of action and preparation for clinical use. Hambleton P
Division of Biologics, PHLS Centre for Applied Microbiology and Research, Proton Down, Salisbury, UK.
J Neurol (GERMANY) Jan 1992, 239 (1) p16-20, ISSN 0340-5354 Journal Code: JB7
Languages: ENGLISH
Document type: JOURNAL ARTICLE; REVIEW; REVIEW, TUTORIAL The neurotoxins produced by ***Clostridium*** ***botulinum*** are the most potent acute toxins known and are the causative agents of the neuroparalytic disease botulism. The toxins act primarily at peripheral cholinergic synapses by blocking the evoked release of the neurotransmitter acetylcholine. There are seven distinct serotypes of ***toxin***. All are polypeptides of Mr about 150 kDa that have similar structure and pharmacological action. In their most active forms the toxins exist as dichain molecules in which a heavy (H) chain is linked by disulphide bonding to a light (L) chain. The H chain is believed to be associated with the highly specific and avid binding of ***toxin*** to the motor nerve end plates and also with the process of internalisation of the ***toxin***. The toxic activity appears to be associated with the L chain which blockades the calcium-mediated release of acetylcholine, probably by interfering at the molecular level with the mechanisms whereby neurotransmitter-containing vesicles merge with the plasmalemma. The ***type*** ***A*** ***toxin*** is now used therapeutically to treat a variety of conditions involving involuntary muscle spasm. The therapeutic ***toxin*** is a ***neurotoxin*** -haemagglutinin complex isolated from cultures of C. botulinum. A controlled manufacturing process has been developed for the therapeutic ***toxin*** which is specially formulated to give a freeze-dried product having good stability. (31 Refs.)

8/7/42
DIALOG(R)File 155:MEDLINE(R)

07601847 91120847
Botulinum ***neurotoxin*** ***type*** ***A***: sequence of amino acids at the N-terminus and around the nicking site.
DasGupta BR; Dekleva ML
Food Research Institute, University of Wisconsin, Madison 53706. Biochimie (FRANCE) Sep 1990, 72

(9) p661-4, ISSN 0300-9084 Journal Code: A14
Contract/Grant No.: NS17742, NS, NINDS; NS24545, NS, NINDS Languages: ENGLISH
Document type: JOURNAL ARTICLE

Clostridium ***botulinum*** synthesizes the ***type*** ***A*** botulinum ***neurotoxin*** (NT) as a approximately 150 kDa single chain protein. Post-translational proteolytic processing yields a approximately 150 kDa dichain protein composed of a approximately 50 kDa light and approximately 100 kDa heavy chain, which has higher toxicity. Trypsin's action mimics the endogenous proteolytic processing. The proteolytic cleavages could occur at 4 sites. We have examined 2 such sites and defined the peptide sequences before and after proteolytic processing. The N-terminal residues of the newly synthesized approximately 150 kDa single chain NT, Pro-Phe-Val-Asn-Lys-, remain intact at the N-terminus of the approximately 50 kDa light chain generated either in the clostridial culture or in vitro with trypsin or with a protease purified from the homologous bacterial culture. The clostridial protease cleaves the single chain NT in vitro, at 1/3 the distance from its N-terminus, on the amino side of Gly of the sequence -Gly-Tyr-Asn-Lys-Ala-Leu-Asn-Asp-Leu- before cleaving the bond Lys-Ala at a slower rate. The data indicate that the dichain NT is formed in the bacterial culture in at least 2 steps. Cleavage at X-Gly produces a approximately 100 kDa heavy chain-like fragment which is then truncated; cleavage 4 residues downstream at Lys-Ala, and excision of the tetrapeptide Gly-Tyr-Asn-Lys, generates the mature heavy chain with Ala as its N-terminal residue. The approximately 100 kDa heavy chain generated in vitro, by nicking the single chain NT with trypsin, also has Ala-Leu-Asn- as the N-terminal residues.

8/7/45
DIALOG(R)File 155:MEDLINE(R)

07357400 90264400

The complete sequence of botulinum ***neurotoxin*** ***type*** ***A*** and comparison with other clostridial neurotoxins.

Binz T; Kurazono H; Wille M; Frevert J; Wernars K; Niemann H Institut fur Medizinische Virologie der Justus-Liebig-Universitat, Giessen, Federal Republic of Germany.

J Biol Chem (UNITED STATES) Jun 5 1990, 265 (16) p9153-8, ISSN 0021-9258 Journal Code: HIV
Languages: ENGLISH
Document type: JOURNAL ARTICLE

The seven serologically different botulinum neurotoxins are highly potent protein toxins that inhibit neurotransmitter release from peripheral cholinergic synapses. The activated toxins consist of the toxifying A-subunits (Mr approximately 50,000) linked by a disulfide bond to the receptor-binding BC-subunits (Mr approximately 100,000). We have established the complete sequence of botulinum ***neurotoxin*** ***type*** ***A*** (BoNT/A; 1,296 amino acid residues, Mr = 149,425) and a partial sequence of botulinum ***neurotoxin*** type E (273 amino acid residues) as deduced from the corresponding nucleotide sequences of the chromosomally located structural genes. The promoter of the BoNT/A gene is inactive in Escherichia coli. Primer extension experiments indicated that initiation of transcription of the BoNT/A gene occurred 118 nucleotides upstream from the ATG codon. A comparison of the protein sequence revealed an overall identity of 33.8% to that of tetanus ***toxin***. No significant similarity to other known proteins including ADP-ribosylating toxins could be detected. Three of the six histidine residues of the A-subunit of BoNT/A were found in the peptide sequence H223ELIHXXH230 within a domain of predicted alpha-helical secondary structure. This motif is also found in similar positions of the A-subunits of tetanus ***toxin*** and BoNT/E.

8/7/47
DIALOG(R)File 155:MEDLINE(R)

07328864 90235864

The complete amino acid sequence of the ***Clostridium*** ***botulinum*** ***type*** ***A*** ***neurotoxin*** , deduced by nucleotide sequence analysis of the encoding gene.

Thompson DE; Brehm JK; Oultram JD; Swinfield TJ; Shone CC; Atkinson T; Melling J; Minton NP

Division of Biotechnology, Centre for Applied Microbiology and Research, Porton Down, England.

Eur J Biochem (GERMANY, WEST) Apr 20 1990, 189 (1) p73-81, ISSN 0014-2956 Journal Code: EMZ

Languages: ENGLISH

Document type: JOURNAL ARTICLE

A 26-mer oligonucleotide probe was synthesized (based on the determined amino acid sequence of the N-terminus of the ***Clostridium*** ***botulinum*** ***type*** ***A*** ***neurotoxin***, BoNT/A) and used in Southern blot analysis to construct a restriction map of the region of the clostridial genome encompassing BoNT/A. The detailed information obtained enabled the cloning of the structural gene as three distinct fragments, none of which were capable of directing the expression of a toxic molecule. The central portion was cloned as a 2-kb PvuII-TaqI fragment and the remaining regions of the light chain and heavy chain as a 2.4-kb ScaI-TaqI fragment and a 3.4-kb HpaI-PvuII fragment, respectively. The nucleotide sequence of all three fragments was determined and an open reading frame identified, composed of 1296 codons corresponding to a polypeptide of 149 502 Da. The deduced amino acid sequence exhibited 33% similarity to tetanus ***toxin*** , with the most highly conserved regions occurring between the N-termini of the respective heavy chains. Conservation of Cys residues flanking the position at which the toxins are cleaved to yield the heavy chain and light chain allowed the tentative identification of those residues which probably form the disulphide bridges linking the two ***toxin*** subfragments.

8/7/48

DIALOG(R)File 155:MEDLINE(R)

07327757 90234757

C. botulinum ***neurotoxin*** types A and E: isolated light chain breaks down into two fragments. Comparison of their amino acid sequences with tetanus ***neurotoxin***.

DasGupta BR; Foley J Jr

Food Research Institute, University of Wisconsin, Madison 53706. Biochimie (FRANCE) Nov-Dec 1989, 71 (11-12) p1193-200, ISSN 0300-9084 Journal Code: A14

Contract/Grant No.: NS17742; NS24545

Languages: ENGLISH

Document type: JOURNAL ARTICLE

The flaccid paralysis in the neuromuscular disease botulism appears to depend on the coordinated roles of the approximately 50 kDa light and approximately 100 kDa heavy chain subunits of the approximately 150 kDa neurotoxic protein produced by ***Clostridium*** ***botulinum*** (J. Biol. Chem. (1987) 262, 2660 and Eur. J. Biochem. (1988) 177, 683). We observed that the light chain after separation from its conjugate heavy chain, in the presence of dithiothreitol and 2 M urea, begins to split into approximately 28 and approximately 18 kDa fragments. The other subunit-the approximately 100 kDa heavy chain following its isolation-and the parent approximately 150 kDa dichain ***neurotoxin*** do not break down under comparable conditions. This cleavage was examined in the ***neurotoxin*** serotypes A and E. The cleavage does not appear to be due to a protease. Partial amino acid sequences established that: i) the approximately 28-kDa and approximately 18-kDa fragments comprise the N- and C-terminal regions of the light chain, respectively; ii) the light chain of the ***neurotoxin*** serotypes A and E break down at precise peptide bonds; iii) the peptide bonds cleaved in serotypes A and E are five residues apart; and iv) the portions of the approximately 18 kDa fragments of ***serotype*** ***A*** and E ***neurotoxin*** sequenced so far are highly homologous to the corresponding region of tetanus ***neurotoxin*** produced by Clostridium tetani. The partial N-terminal sequence of the approximately 28 kDa fragment matches with the N-terminal sequence of the intact L chain. The 47 residues of the approximately 18-kDa fragment of ***type*** ***A*** sequenced from its N-terminal are:
-Y.E.M.S.G.L.E.V.S.F.E.E.L.R.T.F.G.G.H.D .A.K.F.I.D.S.L.Q.E.N.E.F.R.L.Y.Y .Y. N.K.F.K.

D.I.A.S.T.L.-. These align with those of tetanus ***neurotoxin*** beginning at its residue #259 (Tyr); the 18 underlined residues of the above 47 residues (i.e. 38%) are identical in positions between the two proteins. The 41 residues sequenced from the approximately 18 kDa fragment of type E botulinum ***neurotoxin*** are: -K.G.I.N.I.E.E.F.L. T.F.G.N.N.D.L.N.I.I.T.V.A.Q.Y.N.D.I.Y.T.N.L.L.N.D. Y.R. K.I.A.X.K. L.-.(ABSTRACT TRUNCATED AT 250 WORDS)

8/7/53
DIALOG(R)File 155:MEDLINE(R)

07048959 89350959
Characterization of botulinum ***type*** ***A*** ***neurotoxin*** gene: delineation of the N-terminal encoding region.
Betley MJ; Somers E; DasGupta BR
Department of Bacteriology, University of Wisconsin, Madison 53706. Biochem Biophys Res Commun (UNITED STATES) Aug 15 1989, 162 (3) p1388-95, ISSN 0006-291X Journal Code: 9Y8
Contract/Grant No.: NS17742; NS25063
Languages: ENGLISH
Document type: JOURNAL ARTICLE
A 456 basepair HindIII fragment that encoded a portion of the ***type*** ***A*** botulinum ***neurotoxin*** gene was cloned into Escherichia coli using a plasmid vector. DNA sequence analysis revealed that this botulinum DNA insert encoded an open reading frame of 35 amino acid residues of which 34 corresponded to the N-terminal residues of botulinum ***neurotoxin*** ***type*** ***A***.

8/7/103
DIALOG(R)File 155:MEDLINE(R)

05377030 84301030
Purification and amino acid composition of ***type*** ***A*** botulinum ***neurotoxin***.
DasGupta BR; Sathyamoorthy V
Toxicon (ENGLAND) 1984, 22 (3) p415-24, ISSN 0041-0101 Journal Code: VWT
Contract/Grant No.: NS17742
Languages: ENGLISH
Document type: JOURNAL ARTICLE
A method to purify ***type*** ***A*** botulinum ***neurotoxin*** from a 64 liter bacterial culture is reported. The procedure includes cation exchange chromatography at pH 7.0. The final product, essentially homogeneous (according to polyacrylamide gel-sodium dodecylsulfate electrophoresis), is a mixture of two forms of the ***neurotoxin*** (mol. wt 145,000); the dichain or nicked form (over 95%) and its precursor the single chain or unnicked form. Two batches of the ***neurotoxin*** purified by the method described here and one batch purified according to the method of Sugii and Sakaguchi were similar in purity and amino acid composition. The best estimate of the number of amino acid residues per ***neurotoxin*** molecule (mol. wt 145,000) is: Asp200Thr75Ser79Glu114Pro44Gly64Ala53Val70Cy S10Met22Ile111Leu104Tyr71 Phe68Lys100His14Arg43Trp17.

8/7/106
DIALOG(R)File 155:MEDLINE(R)

05254501 84178501
Partial amino acid sequence of the heavy and light chains of botulinum ***neurotoxin*** ***type***

A.
Schmidt JJ; Sathyamoorthy V; DasGupta BR
Biochem Biophys Res Commun (UNITED STATES) Mar 30 1984, 119 (3) p900-4 , ISSN 0006-291X Journal Code: 9Y8
Contract/Grant No.: NS 17742
Languages: ENGLISH
Document type: JOURNAL ARTICLE
The dichain (nicked) ***type*** ***A*** botulinum ***neurotoxin*** is a protein (mol. wt. 145,000) composed of a heavy and a light chain (mol. wt. 97,000 and 53,000, respectively) that are held together by disulfide bond(s). We report here the sequence of the first 17 amino acid residues of the light chain, and the first 10 residues of the heavy chain. The heavy chain was isolated from the ***neurotoxin*** by two different methods, while the light chain was isolated by the only available method. The identical amino acid sequence was found in both preparations of heavy chain. Two samples of the light chain isolated from two separately prepared batches of the ***neurotoxin*** also had identical sequences.

8/7/170
DIALOG(R)File 155:MEDLINE(R)

00869301 69014301
Heterogeneity of Clstridium botulinum ***type*** ***A*** ***toxin***. Hauschild AH; Hilsheimer R
Can J Microbiol (CANADA) Jul 1968, 14 (7) p805-7, ISSN 0008-4166 Journal Code: CJ3
Languages: ENGLISH
Document type: JOURNAL ARTICLE

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DIALOG(R)File 155:MEDLINE(R)

00216028 67041028
Amino acid composition of ***Clostridium*** ***botulinum*** ***type*** ***A*** ***toxin***.
Alstyne DV; Gerwing J; Tremaine JH
J Bacteriol (UNITED STATES) Sep 1966, 92 (3) p796-7, ISSN 0021-9193 Journal Code: HH3
Languages: ENGLISH
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Cleavage of members of the synaptobrevin/VAMP family by types D and F botulinal neurotoxins and tetanus toxin.

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08809495 94124495
Proteolysis of SNAP-25 by types E and A botulinal neurotoxins.

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08202509 92340509
Minimal essential domains specifying toxicity of the light chains of tetanus toxin and botulinum neurotoxin type A.

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The complete sequence of botulinum neurotoxin type A and comparison with other clostridial neurotoxins.
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Minimal essential domains specifying toxicity of the light chains of tetanus toxin and botulinum neurotoxin type A.

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The complete sequence of botulinum neurotoxin type A and comparison with other clostridial neurotoxins.
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DIALOG(R)File 155:MEDLINE(R)

08202509 92340509
Minimal essential domains specifying toxicity of the light chains of tetanus toxin and botulinum neurotoxin type A.
Kurazono H; Mochida S; Binz T; Eisel U; Quanz M; Grebenstein O; Wernars K; Poulain B; Tauc L; Niemann H
Institute for Microbiology, Federal Research Center for Virus Diseases of Animals, Tubingen, Federal Republic of Germany.
J Biol Chem (UNITED STATES) Jul 25 1992, 267 (21) p14721-9, ISSN 0021-9258 Journal Code: HIV
Languages: ENGLISH
Document type: JOURNAL ARTICLE
To define conserved domains within the light (L) chains of clostridial neurotoxins, we determined the sequence of botulinum neurotoxin type B (BoNT/B) and aligned it with those of tetanus toxin (TeTx) and BoNT/A, BoNT/C1, BoNT/D, and BoNT/E. The L chains of BoNT/B and TeTx share 51.6% identical amino acid residues whereas the degree of identity to other clostridial neurotoxins does not exceed 36.5%. Each of the L chains contains a conserved motif, HExxHxxH, characteristic for metalloproteases. We then generated specific 5'- and 3'-deletion mutants of the L chain genes of TeTx and BoNT/A and tested the biological properties of the gene products by microinjection of the corresponding mRNAs into identified presynaptic cholinergic neurons of the buccal ganglia of Aplysia californica. Toxicity was determined by measurement of neurotransmitter release, as detected by depression of postsynaptic responses to presynaptic stimuli (Mochida, S., Poulain, B., Eisel, U., Binz, T., Kurazono, H., Niemann, H., and Tauc, L. (1990) Proc. Natl. Acad. Sci. U. S. A. 87, 7844-7848). Our studies allow the following conclusions. 1) Residues Cys439 of TeTx and Cys430 of BoNT/A, both of which participate in the interchain disulfide bond, play no role in the toxification reaction. 2) Derivatives of TeTx that lacked either 8 amino- or 65 carboxyl-terminal residues are still toxic, whereas those lacking 10 amino- or 68 carboxyl-terminal residues are nontoxic. 3) For BoNT/A, toxicity could be demonstrated only in the presence of added nontoxic heavy (H) chain. A deletion of 8 amino-terminal or 32 carboxyl-terminal residues from the L chain had no effect on toxicity, whereas a removal of 10 amino-terminal or 57 carboxyl-terminal amino acids abolished toxicity. 4) The synergistic effect mediated by the H chain is linked to the carboxyl-terminal portion of the H chain, as demonstrated by injection of HC-specific mRNA into neurons containing the L chain. This finding suggests that the HC domain of the H chain becomes exposed to the cytosol during or after the putative translocation step of the L chain.
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1603 CLOSTRIDIUM
295 BOTULINUM
L3 203 CLOSTRIDIUM(W)BOTULINUM

=> s l3 and vaccin?
5525 VACCIN?
L4 45 L3 AND VACCIN?

=> d l4 1-45

1. 5,439,793, Aug. 8, 1995, Method for producing a polynucleotide having an intramolecularly base-paired structure; Samuel Rose, et al., 435/6, 91.2; 935/77, 78 [IMAGE AVAILABLE]

2. 5,424,033, Jun. 13, 1995, Process and autoclave system for size reducing and disinfecting contaminated hospital refuse; Rolf E. Roland, 422/26; 241/18, 23, 29, 606; 422/33, 295, 309; 588/258 [IMAGE AVAILABLE]
3. 5,397,698, Mar. 14, 1995, Amplification method for polynucleotide detection assays; Thomas C. Goodman, et al., 435/6, 91.1; 935/77, 78 [IMAGE AVAILABLE]

4. 5,340,716, Aug. 23, 1994, Assay method utilizing photoactivated chemiluminescent label; Edwin F. Ullman, et al., 435/6, 7.7 [IMAGE AVAILABLE]

5. 5,279,936, Jan. 18, 1994, Method of separation employing magnetic particles and second medium; John Vorpahl, 435/6, 5, 7.1, 7.92, 7.93, 7.94, 7.95; 436/501, 512, 513, 518, 526, 536, 538 [IMAGE AVAILABLE]
6. 5,273,879, Dec. 28, 1993, Amplification method for polynucleotide assays; Thomas C. Goodman, et al., 435/6, 91.2; 536/22.1, 24.31, 24.32 [IMAGE AVAILABLE]

7. 5,185,243, Feb. 9, 1993, Method for detection of specific nucleic acid sequences; Edwin F. Ullman, et al., 435/6, 91.2, 91.3, 91.5, 91.52, 810, 975; 436/94, 501; 536/24.3; 935/77, 78 [IMAGE AVAILABLE]
8. 5,169,599, Dec. 8, 1992, Method and apparatus for optically detecting presence of immunological components; Jose P. Joseph, et al., 422/57; 436/525, 808, 810 [IMAGE AVAILABLE]

9. 5,130,128, Jul. 14, 1992, Use of honey as ▼ vaccine ▼ ; Ralph J. Stolle, 424/157.1, 167.1, 172.1 [IMAGE AVAILABLE]

10. 5,006,464, Apr. 9, 1991, Directed flow diagnostic device and method; Albert E. Chu, et al., 435/7.1; 422/55, 56, 58, 101; 435/7.92, 805, 810; 436/165, 170, 518, 525, 528, 531, 807, 808 [IMAGE AVAILABLE]

11. 4,994,368, Feb. 19, 1991, Amplification method for polynucleotide assays; Thomas C. Goodman, et al., 435/6, 91.2; 436/94, 501 [IMAGE AVAILABLE]

12. 4,845,042, Jul. 4, 1989, Adjuvant for immunization; John F. E. Newman, et al., 436/545; 424/193.1, 196.11, 197.11, 485; 435/5; 436/543, 547, 808; 514/773, 776, 964, 965 [IMAGE AVAILABLE]

13. 4,774,191, Sep. 27, 1988, Fluorescent conjugates bound to a support; Pyare Khanna, et al., 436/518, 528, 529, 546, 800, 805 [IMAGE AVAILABLE]
14. 4,689,299, Aug. 25, 1987, Human monoclonal antibodies against bacterial toxins; Richard A. Insel, et al., 435/240.27; 424/142.1, 150.1; 435/172.2; 530/388.15, 388.4; 935/95, 96 [IMAGE AVAILABLE]
15. 4,652,531, Mar. 24, 1987, Fluorescent protein binding assays with unsymmetrical fluorescein derivatives; Pyare Khanna, et al., 436/501, 518, 537, 546, 800 [IMAGE AVAILABLE]

16. 4,650,770, Mar. 17, 1987, Energy absorbing particle quenching in light emitting competitive protein binding assays; Yen-Ping Liu, et al., 436/523, 533, 534, 537, 546, 805 [IMAGE AVAILABLE]

17. 4,588,697, May 13, 1986, Method for performing fluorescent protein binding assay employing novel alkyl substituted fluorescent compounds and conjugates; Pyare Khanna, et al., 436/518, 528, 531, 532, 537, 546, 800; 530/406, 807 [IMAGE AVAILABLE]

18. 4,582,791, Apr. 15, 1986, Reducing non-specific background in immunofluorescence techniques; Pyare L. Khanna, et al., 435/5; 252/301.16; 435/7.1, 7.23, 7.31, 7.32, 7.36, 975; 436/519, 548, 800, 825 [IMAGE AVAILABLE]

19. 4,501,692, Feb. 26, 1985, Charge effects in enzyme immunoassays; Ian Gibbons, et al., 530/391.5; 424/530; 435/188; 436/547; 530/389.3 [IMAGE AVAILABLE]

20. 4,496,587, Jan. 29, 1985, Inhibition of bacterial toxin release by prostaglandins; Harold E. Renis, et al., 514/573; 424/115; 514/192, 196, 198, 199, 207, 530 [IMAGE AVAILABLE]

21. 4,481,136, Nov. 6, 1984, Alkyl substituted fluorescent compounds and conjugates; Pyare Khanna, et al., 530/391.5; 435/177, 178, 188, 968; 436/546, 547; 525/420; 530/363, 403, 404, 405, 406, 802, 806; 549/388 [IMAGE AVAILABLE]

22. 4,439,356, Mar. 27, 1984, Unsymmetrical fluorescein derivatives; Pyare Khanna, et al., 530/350; 435/5, 7.31, 7.32, 7.33, 7.34, 7.35, 7.36, 7.37, 188, 961; 436/172, 546; 525/420; 530/391.5, 406 [IMAGE AVAILABLE]

23. 4,391,904, Jul. 5, 1983, Test strip kits in immunoassays and compositions therein; David J. Litman, et al., 435/7.91; 422/55, 56; 435/188, 805, 810, 975; 436/536, 537 [IMAGE AVAILABLE]

24. 4,374,925, Feb. 22, 1983, Macromolecular environment control in specific receptor assays; David J. Litman, et al., 435/7.91, 5, 7.31, 7.32, 7.33, 7.34, 7.35, 7.36, 7.37, 7.8, 7.92, 177, 810, 966, 968, 971; 436/529, 800 [IMAGE AVAILABLE]

25. 4,366,241, Dec. 28, 1982, Concentrating zone method in heterogeneous immunoassays; Henry K. Tom, et al., 435/7.91; 422/56; 435/5, 7.9, 7.92, 805, 810, 968, 975; 436/541, 800, 807 [IMAGE AVAILABLE]

26. 4,351,760, Sep. 28, 1982, Novel alkyl substituted fluorescent compounds and polyamino acid conjugates; Pyare Khanna, et al., 530/395; 435/7.2, 188, 961, 968; 436/546, 547; 530/345, 391.5, 405, 406, 806; 549/388 [IMAGE AVAILABLE]

27. 4,328,311, May 4, 1982, Enzyme-aminoglycoside conjugates; Gerald L. Rowley, et al., 435/188, 177; 530/345, 375, 391.9, 405, 406, 408, 806 [IMAGE AVAILABLE]

28. 4,318,846, Mar. 9, 1982, Novel ether substituted fluorescein polyamino acid compounds as fluorescers and quenchers; Pyare Khanna, et al., 530/391.5; 435/188, 961, 968; 436/546, 547; 525/420; 530/345, 389.3, 391.3, 404, 405, 406, 409, 410, 806; 549/223, 388 [IMAGE AVAILABLE]

29. 4,287,300, Sep. 1, 1981, Charge effects in enzyme immunoassays; Ian Gibbons, et al., 435/5, 7.32, 7.9, 188, 810; 436/527, 529, 531, 546, 547, 800, 805, 806, 811, 815, 820 [IMAGE AVAILABLE]

30. 4,281,061, Jul. 28, 1981, Double antibody for enhanced sensitivity in immunoassay; Robert F. Zuk, et al., 435/7.9, 5, 7.2, 7.31, 7.32, 7.33, 7.34, 7.35, 7.36, 7.37, 7.7, 7.8, 7.91, 188, 966, 968, 971; 436/537, 540, 800, 808 [IMAGE AVAILABLE]

31. 4,275,149, Jun. 23, 1981, Macromolecular environment control in specific receptor assays; David J. Litman, et al., 435/7.91, 5, 6, 7.1, 7.2, 7.31, 7.32, 7.33, 7.34, 7.35, 7.36, 7.37, 7.71, 7.72, 7.8, 7.92, 177,

178, 810, 968, 971; 436/531 [IMAGE AVAILABLE]

32. 4,272,506, Jun. 9, 1981, Purification of reagents by disulfide immobilization; Moshe Schwarzberg, 436/512; 250/302; 435/4, 962, 964, 968; 436/513, 546, 547, 800, 825; 530/389.1, 389.3, 391.1, 391.3, 404, 413, 813, 861 [IMAGE AVAILABLE]

33. 4,261,968, Apr. 14, 1981, Fluorescence quenching with immunological pairs in immunoassays; Edwin F. Ullman, et al., 436/546; 250/302; 435/968; 436/530, 537, 547, 800, 811, 815, 816, 820, 826 [IMAGE AVAILABLE]

34. 4,256,834, Mar. 17, 1981, Fluorescent scavenger particle immunoassay; Robert F. Zuk, et al., 435/7.72, 5, 7.2, 7.32, 7.4, 810, 975; 436/529, 534, 537, 800, 805, 808 [IMAGE AVAILABLE]

35. 4,235,869, Nov. 25, 1980, Assay employing a labeled Fab-fragment ligand complex; Moshe Schwarzberg, 436/512; 250/302; 435/7.7, 7.72, 968; 436/513, 536, 537, 541, 800 [IMAGE AVAILABLE]

36. 4,233,402, Nov. 11, 1980, Reagents and method employing channeling; Edward T. Maggio, et al., 435/5, 7.7, 7.91, 968; 436/537, 805 [IMAGE AVAILABLE]

37. 4,233,401, Nov. 11, 1980, Antienzyme homogeneous competitive binding assay; Robert A. Yoshida, et al., 435/7.8, 7.9, 185, 810, 963 [IMAGE AVAILABLE]

38. 4,220,722, Sep. 2, 1980, Method for conjugating to polyamino compounds employing haloacyl groups and compositions prepared thereby; Gerald L. Rowley, et al., 435/188, 7.9, 177, 961, 964; 436/537, 816, 823; 530/322, 345, 395, 403, 404, 405, 406, 408, 409, 410, 806 [IMAGE AVAILABLE]

39. 4,220,450, Sep. 2, 1980, Chemically induced fluorescence immunoassay; Edward T. Maggio, 436/537; 435/5, 7.32, 7.5, 7.71, 7.8, 7.9, 8, 966, 968; 436/500, 800, 816, 817 [IMAGE AVAILABLE]

40. 4,208,479, Jun. 17, 1980, Label modified immunoassays; Robert F. Zuk, et al., 435/7.9, 7.72, 7.8; 436/512, 537, 808, 826 [IMAGE AVAILABLE]

41. 4,199,559, Apr. 22, 1980, Fluorescence quenching with immunological pairs in immunoassays; Edwin F. Ullman, et al., 436/537, 800, 816 [IMAGE AVAILABLE]

42. 4,174,384, Nov. 13, 1979, Fluorescence quenching with immunological pairs in immunoassays; Edwin F. Ullman, et al., 436/537; 250/302; 435/7.1, 7.2, 7.31, 7.32, 7.8, 968; 436/800, 816; 530/363, 389.3, 389.8, 391.3, 404, 405, 417, 806 [IMAGE AVAILABLE]

43. 4,172,126, Oct. 23, 1979, Method for the inactivation of microbial toxins and attenuation of ▼ vaccines ▼ ; Takashi Okonogi, et al., 424/237.1, 184.1, 236.1, 238.1, 239.1, 240.1, 278.1; 435/245, 822, 842, 844, 885 [IMAGE AVAILABLE]

44. 4,160,645, Jul. 10, 1979, Catalyst mediated competitive protein binding assay; Edwin F. Ullman, 436/517, 537, 803, 805, 806, 816 [IMAGE AVAILABLE]

45. 3,996,345, Dec. 7, 1976, Fluorescence quenching with immunological pairs in immunoassays; Edwin F. Ullman, et al., 436/537; 252/301.16; 435/5, 7.1, 7.2, 7.4, 968; 436/800, 815, 816, 817; 530/363, 389.3, 389.8, 391.3, 404, 406, 408, 410 [IMAGE AVAILABLE]

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1. ▼ 5,268,276 ▼ , Dec. 7, 1993, Recombinant systems for expression of cholera B-sub-unit with the aid of foreign promoters and/or leader peptides; Jan Holmgren, et al., 435/69.1, 69.7, 252.3, 320.1 [IMAGE AVAILABLE]

=> s botulinum/ti or botulinum/ab
12 BOTULINUM/TI
24 BOTULINUM/AB
L6 24 BOTULINUM/TI OR BOTULINUM/AB

=> d l6 1-24

1. 5,437,291, Aug. 1, 1995, Method for treating gastrointestinal muscle disorders and other smooth muscle dysfunction; Pankai J. Pasricha, et al., 128/898; 424/236.1, 239.1, 581; 604/19, 49, 51 [IMAGE AVAILABLE]
2. 5,393,545, Feb. 28, 1995, Composition active against botulism; Eric A. Johnson, et al., 426/268; 424/94.61; 514/106, 423, 557, 562, 566, 673 [IMAGE AVAILABLE]

3. 5,306,730, Apr. 26, 1994, ▼ Botulinum ▼ toxin neutralizer; Yoshitaka Nagai, et al., 514/558, 559, 560; 554/1, 220, 222, 223, 224 [IMAGE AVAILABLE]

4. 5,298,019, Mar. 29, 1994, Controlled administration of chemodenervating pharmaceuticals; Gary E. Borodic, 604/51; 128/898 [IMAGE AVAILABLE]

5. 5,183,462, Feb. 2, 1993, Controlled administration of chemodenervating pharmaceuticals; Gary E. Borodic, 604/51; 128/898 [IMAGE AVAILABLE]

6. 5,053,005, Oct. 1, 1991, Chemomodulation of curvature of the juvenile spine; Gary E. Borodic, 604/51; 128/898 [IMAGE AVAILABLE]

7. 5,017,391, May 21, 1991, Packaged foodstuff containing a lactate salt; Robert J. Anders, et al., 426/129, 643, 644 [IMAGE AVAILABLE]
8. 4,932,936, Jun. 12, 1990, Method and device for pharmacological control of spasticity; Dennis D. Dykstra, et al., 604/51 [IMAGE AVAILABLE]

9. 4,888,191, Dec. 19, 1989, Method for delaying Clostridium ▼ botulinum ▼ growth in fish and poultry; Robert J. Anders, et al., 426/281, 325, 326, 332, 532 [IMAGE AVAILABLE]

10. 4,806,372, Feb. 21, 1989, Nitrite-free-curing of bacon and product thereof; Louis Strumskis, 426/129, 265, 326, 332, 641 [IMAGE AVAILABLE]
11. 4,798,729, Jan. 17, 1989, Method for delaying Clostridium ▼ botulinum ▼ growth in fish and poultry; Robert J. Anders, et al., 426/326, 332, 532 [IMAGE AVAILABLE]

12. 4,597,972, Jul. 1, 1986, Nisin as an antibotulinal agent for food products; Stephen L. Taylor, 426/36, 9, 38, 52, 56, 330.2, 334, 582 [IMAGE AVAILABLE]

13. 4,584,199, Apr. 22, 1986, Antibotulinal agents for high moisture process cheese products; Stephen L. Taylor, 426/36, 38, 330.2, 334, 582 [IMAGE AVAILABLE]

14. 4,443,484, Apr. 17, 1984, Method for preservation of meat products; Robert V. Dahlstrom, 426/266, 332, 641 [IMAGE AVAILABLE]

15. 4,401,683, Aug. 30, 1983, Carbohydrate food products resistant to Clostridium ▼ botulinum ▼ and the formation of enterotoxin; John S. Thompson, 426/331, 335, 532, 615, 658, 801 [IMAGE AVAILABLE]

16. 4,348,419, Sep. 7, 1982, Method for inhibiting the growth of Clostridium ▼ botulinum ▼ and the formation of enterotoxin in comminuted meat products and products thereof; John S. Thompson, et al., 426/264, 315, 332, 335, 532, 646, 652 [IMAGE AVAILABLE]

17. 4,346,117, Aug. 24, 1982, Method for inhibiting the growth of Clostridium ▼ botulinum ▼ and the formation of enterotoxin in corned beef and poultry and products thereof; John S. Thompson, et al., 426/264, 315, 332, 335, 532, 641, 644, 652 [IMAGE AVAILABLE]

18. 4,344,977, Aug. 17, 1982, Smoked fish products which inhibit the growth of Clostridium ▼ botulinum ▼ and the formation of enterotoxin; John S. Thompson, et al., 426/532, 643, 652 [IMAGE AVAILABLE]
19. 4,342,789, Aug. 3, 1982, Process for inhibiting growth of Clostridium ▼ botulinum ▼ and formation of nitrosamines in meat; Ryuzo Ueno, et al., 426/266, 281, 332, 335, 641, 646, 652 [IMAGE AVAILABLE]
20. 4,338,345, Jul. 6, 1982, Smoked meat products which inhibit the growth of clostridium ▼ botulinum ▼ and the formation of enterotoxin; Joseph F. Jadlocki, Jr., et al., 426/532, 641, 652 [IMAGE AVAILABLE]
21. 4,282,260, Aug. 4, 1981, Method for inhibiting the growth of Clostridium ▼ botulinum ▼ and the formation of enterotoxin in smoked meat products; Joseph F. Jadlocki, Jr., et al., 426/264, 315, 332, 335, 532, 641, 652 [IMAGE AVAILABLE]

22. 4,277,507, Jul. 7, 1981, Method for inhibiting the growth of clostridium ▼ botulinum ▼ and the formation of enterotoxin in smoked fish products; John S. Thompson, et al., 426/264, 315, 332, 335, 532, 643, 652 [IMAGE AVAILABLE]

23. 3,765,908, Oct. 16, 1973, TREATING FOOD WITH POLYPEPTIDE HADDOCK EXTRACT TO PREVENT THE OUTGROWTH OF CLOSTRIDIUM ▼ BOTULINUM ▼ ; John T. R. Nickerson, et al., 426/321, 330, 332; 530/300, 857 [IMAGE AVAILABLE]
24. 3,607,311, Sep. 21, 1971, OBTULINUM EXOTOXIN INHIBITED FOODS; Gerhard Julius Hass, et al., 426/532 [IMAGE AVAILABLE]

=> d l6 2

2. 5,393,545, Feb. 28, 1995, Composition active against botulism; Eric A. Johnson, et al., 426/268; 424/94.61; 514/106, 423, 557, 562, 566, 673 [IMAGE AVAILABLE]

=> d l6 ab

US PAT NO: 5,437,291 [IMAGE AVAILABLE] L6: 1 of 24
ABSTRACT:
Direct injection of sphincteric ▼ botulinum ▼ toxin is disclosed as an effective, safe and simple method of treatment for disorders of gastrointestinal muscle or smooth muscles elsewhere in the body, with results that appear to be sustained for several months. Muscle disorders which are suitable for such treatment include achalasia, isolated disorders of the lower esophageal sphincter, gastroparesis, hypertrophic pyloric stenosis, sphincter of Oddi dysfunction, short-segment Hirschsprung's, anal fissure, hemorrhoids, proctalgia fugax, irritable bowel syndrome, disorders of the upper esophageal sphincter, vasospastic disorders, and disorders of uterine and bladder spasm. Devices suitable for delivering this therapy are also disclosed.

=> d l6 2 ab

US PAT NO: 5,393,545 [IMAGE AVAILABLE] L6: 2 of 24
ABSTRACT:
This invention relates to a composition of food having animal and/or vegetable origin which contains lysozyme and a chelating agent in amounts that are effective at preventing contamination of the food by Clostridium ▼ botulinum ▼ .

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REDUCTION IN ORAL IMMUNOGENICITY OF CHOLERA TOXIN B SUBUNIT BY N-TERMINAL PEPTIDE ADDITION

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10074158 BIOSIS Number: 95074158
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9302888 BIOSIS Number: 43047888
SECRETION OF PSPA-CTB FUSION PRODUCTS FROM STREPTOCOCCUS-PNEUMONIAE AND ESCHERICHIA-COLI

1/6/8
8841911 BIOSIS Number: 42066911
THE MUCOSAL IMMUNE SYSTEM FROM FUNDAMENTAL CONCEPTS TO VACCINE DEVELOPMENT

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